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No. 12.

TREATMENT OF RETROFLEXIO UTERI.¹

By W. Ritchie, M.B., C.M. (Edin.),
Armidale, New South Wales.

I have seen it estimated that there are over a hundred operations or modifications of operations for the treatment of *retroflexio uteri*, and the statement is, I think, attributed to Baldy that the number of operations for the cure of a retroflexed uterus is only limited by the number of women in the world.

A subject such as this, for which so many different methods have been advocated, lends itself, for that reason, to an interesting discussion. It has also the advantage of being a subject which is of interest not only to the specialist but to the general practitioner and a final reason for choosing this subject is that I have not seen it on the agenda paper since I became a member of this Branch of the British Medical Association.

Prophylactic Treatment.

I pass over the immediate repair of the torn perineum, when deep muscles are not affected, because, though often mentioned in text-books as a cause, I do not consider it an important factor in the production of retroflexion of the uterus. Without entering into a discussion of the reasons for this belief, I would point out that we have all seen so many normally-placed uteri in conjunction with bad perineal tears and so many retroflexed uteri with no perineal tear, that our practical experience makes us ignore this as an important cause of retroflexion.

Abdominal binders I do not believe, as is held by some, to be a cause of this condition. But over-indulgence in the dorsal position during the puerperium tends to retroflexion. One has only to remember that the round ligaments contain non-striped muscle, which retracts similarly to the uterine muscle, and that sitting the patient up early in the puerperium tends to antivert the uterus and relax the round ligaments, thereby enabling them to retract. Conversely, if a patient is kept in the dorsal position, the heavy subinvolved uterus inclines to fall backwards, and this obviously keeps up a strain on the ligaments and prevents retraction. My practice is to put the patient in Fowler's position immediately after delivery and sit her up on the third or fourth day.

The promotion of involution by tonics, e.g., quinine, massage, etc., is helpful and it is a wise precaution to examine all patients about a month after confinement.

Treatment.

Pessaries are being less used every day, and not many gynaecologists have a good word to say for them. But there are cases in which they have to be resorted to. In women who refuse operation, relief can only be obtained by their use. In these cases the patient must be informed what a pessary life means. The

constant douching and occasional medical supervision that is necessary must be explained to her, as pessaries have an unhappy knack of shifting their position and uteri have an equally unhappy tendency of retroflexing over them.

A belief that I found was common amongst general practitioners in the old country, is that if a pessary was worn for a few months for retroflexion, it could be dispensed with and the uterus would remain in the corrected position. In my experience, this is quite erroneous, except in cases after a recent confinement. Certainly in cases of long standing the round ligaments do not regain their function, and "once a pessary, always a pessary."

The most useful pessaries are those made of celluloid, as they are more easily moulded and retain their shape better. The melting-point is apparently higher, but when once reached they are softer and more easily manipulated than those made of vulcanite. The shape I found most generally useful in retroflexion is the cradle with a considerable curve. They are at first difficult to insert and remove; but with a little practice this can be done with no inconvenience to the patient.

If a retroflexion is giving rise to clinical symptoms, such as pain, sterility, repeated abortion or endometritis, with the usual accompanying symptoms, menorrhagia, metorrhagia, dysmenorrhœa, leucorrhœa, pain and general ill-health, operative treatment should be advised and the method now most generally approved is internal shortening of the round ligament. Amongst the other methods we have ventro-fixation and ventro-suspension.

Ventro-Fixation and Ventro-Suspension.

There is a careless tendency to class any artificially-produced adhesion of the uterus to the anterior abdominal wall as "ventro-fixation," but it is much less confusing to use the term ventro-fixation for the operation in which the uterus is attached directly to the under surface of the muscle, with the peritoneum drawn aside, and to apply the term ventro-suspension to the operation of creating an adhesion between the uterus and the peritoneum of the anterior abdominal wall.

Ventro-fixation is an operation which is quite unjustified during the child-bearing period. The adhesions caused by sewing the uterus to the muscle are very strong and resistant and if pregnancy takes place, subsequent abortion results in many cases and in others the uterine body is bound to the anterior abdominal wall by the adhesions, and the cervix swings up towards the sacral promontory, causing an impaction of the uterus in the pelvis, resulting in a very serious menace to the patient.

This operation is a thoroughly bad and dangerous one, and it were far better for a woman to continue with the uterus retroflexed than submit to this method of treatment, with the possibility of a subsequent pregnancy.

It would prevent any gynaecologist from perform-

¹ Read at a Meeting of the New South Wales Branch of the British Medical Association on August 29, 1919.

ing this operation if he had experienced the difficulty of emptying a uterus by vaginal Cæsarean section, which had been treated in this way for retroflexion. There is no excuse for this operation during the child-bearing period and few gynaecologists would say I had stated the case against it too strongly.

Ventro-suspension, attaching the uterus to the peritoneum, is not so dangerous, because it is not so efficient. The adhesions to the peritoneum so easily stretch that if pregnancy takes place it is not interrupted. These are ordinary fibrous adhesions, which do not contain non-striped muscle, as the round ligaments do, and, not having the same power of retraction, are therefore not so efficient as suspensory ligaments. I have opened an abdomen five months after ventro-suspension has been performed and found the uterus retroflexed to the third degree and attached to the anterior abdominal wall by two thick fibrous cords, 12 cm. in length. These in themselves are a source of danger, apart from the fact that they are useless as suspensory ligaments. On five other occasions I have experienced a similar condition after ventro-suspension, though at longer intervals after the original operation. This experience shows me that ventro-suspension often fails after pregnancy and in many cases fails to accomplish its object without a subsequent pregnancy. When it does fail the result is free adhesions, which may cause kinking of the bowel. I must therefore discard this operation as unsuitable and useless as a means of accomplishing the object we have in view—the satisfactory suspension of a retroflexed uterus.

The Alexander-Adams Operation.

Neither have I much to say in favour of the Alexander-Adams operation. This operation is only suitable where there is a retroflexion of a normal-sized uterus and where there are no adhesions, in such cases as the retroflexion met with in young girls.

Since I went to Armidale about four years ago I have examined four women who had this operation performed in Sydney, who, when I saw them, had uteri normal in size retroflexed to the third degree. Two of them had no after-pregnancies to blame; but subsequent pregnancy was probably the cause of the failure of this operation in the other two.

Similar results I have seen in Britain, where this operation is very much less frequently employed than formerly.

If this operation fails in uteri which are normal in size, i.e., in cases in which it might be considered suitable, it is quite unsuited for cases in which there is any uterine enlargement. It is worse than useless where there are adhesions, as pain is the result if suspension is achieved, unless the abdomen is opened at the same time, which procedure defeats the whole object of this operation—suspension of the uterus without opening the abdomen.

Internal Shortening of the Round Ligament.

The operations which I prefer and which are now most generally used are those included in the term internal shortening of the round ligaments. Of these, the original Gilliam operation, or one of its modifications, I have found very satisfactory.

This operation, as you know, is pulling the round

ligament, about 2.5 cm. from the uterine end, through the peritoneum, muscle and fascia and stitching it outside the fascia and, if one cares, to the ligament of the other side.

Results of Suspension.

In a series of 88 of my cases, in which I was able to obtain reports from the patients not less than nine months after operation, and in many cases after a longer period, the initial object of the operation (suspension of the uterus) was well achieved in all except one. In this case, in a young girl of 20, an anaesthetic pulmonary condition developed, accompanied by very severe cough, and the suspending stitches gave way at the time. I operated on her a second time and a year after she had a well-suspended uterus, with relief of symptoms.

Results After Pregnancy.

I have examined fourteen patients in whom this operation had been performed after full-time pregnancies, in one case after the birth of three full-time children, and in all cases have found the uterus well suspended. The labour in all had been normal.

There are two objections to this operation which have been aired, but they are more theoretical than practical. They are that, in pulling the round ligament through the fascia, hernia may result and that, in making taut the end of the ligament distal to the uterus, a foramen is formed between it and the anterior abdominal wall, which may result in an internal strangulation of the bowel. The first of these, if it occurs, is due to faulty technique. By that I mean too large an opening is made in the fascia through which the ligaments are drawn. Some surgeons incise the fascia in this operation. My practice is to avoid that and pull the round ligament through with an instrument like a Cleveland's needle. I modified this operation to avoid these two objections. I cut the ligament, burying the outer stump in the broad ligament and freeing the uterine end. I thus obtained a longer suspensory ligament. This was then drawn through the peritoneum and muscle at one level and through the fascia at a higher level, thus minimizing the risk of external hernia and leaving no foramen and so avoiding a possible internal strangulation.

There are two other devices I have employed to avoid this possible result: stitching the distal end of the ligament to the abdominal wall and slackening it off in cases of very lax ligaments so much that it falls back again into the pelvis. This can only be done with a long, lax ligament.

But in my experience these two objections are more theoretical than practical, and in nearly all cases I have reverted to Gilliam's original operation or a modification in which, by a transverse incision, the round ligament can be anchored at a greater distance from the middle line than was practised by Gilliam.

The advantages of this operation over others are as follows: The end-result (suspension of the uterus) is obtained in all cases. There is no return of the uterus to the abnormal position, as too frequently happens after the Alexander-Adams operation and ventro-suspension. The strongest part of

the ligament (the uterine end) is made use of and, as only a short piece of the ligament is required, this is likely to be a more useful suspender than the longer portion used in the Alexander-Adams operation. It does not interfere with pregnancy and retains its rectified position afterwards.

Vaginal fixations, such as Schauta's, I have never practised and I have not heard of them gaining much popularity outside the Vienna clinics.

A method which was recently extolled by two American gynaecologists, which, after all, is an old method revived, is the forcible stretching of adhesions under an anaesthetic and the subsequent use of a pessary. I hope this will not become popular in this country. It is not surgery to deal with abdominal adhesions without exposing them.

In conclusion, I would point out that I do not deal with every case of simple retroversion or retroflexion by operation, but only with those which give rise to pathological symptoms. Many uteri are retroverted or flexed to various degrees and give rise to no trouble. These should be left alone.

THE TREATMENT OF SALPINGITIS.¹

By J. C. Windeyer, M.B., Ch.M. (Sydney), M.R.C.S. (Eng.),
Honorary Assistant Surgeon, Royal Hospital for Women,
Paddington, Sydney.

One of my earliest recollections of the treatment of salpingitis was a remark passed by one of the theatre attendants at the Royal Prince Alfred Hospital that Mr. X., a celebrated gynaecologist, was "tearing tubes and ovaries out by the roots and putting nothing back." This, of course, happened a good many years ago, when the conservative treatment of salpingitis was not in vogue.

Another early recollection was a discussion about pelvic peritonitis with the Superintendent of the same hospital a year or two later. He was questioning the advisability of the gynaecologist operating upon all cases of pelvic inflammation, as he had seen a large number of patients who had apparently recovered during the time they were waiting to get a bed in the hospital. The women, when written to and asked to come in for operation, refused to do so, because they said they were quite well. On examination the pelvic condition was found to have cleared up.

These early recollections have always influenced me in the treatment of salpingitis and I always feel inclined to see what Nature will do before resorting to operative interference.

Salpingitis, in the great majority of cases, is more a disabling than a dangerous disease. Only rarely does an acute inflammatory process in the tubes spread to the upper regions of the abdomen and set up an acute generalized peritonitis. Direct rupture of a tubal or a tubo-ovarian abscess into the peritoneal cavity occurs infrequently. It usually ruptures into a space limited by adhesions. This is, of course, due to the fact that perforation is usually a gradual process and protective peritoneal inflammation with the adhesion of neighbouring organs precedes perforation. If large collections of pus are allowed to remain in

the pelvis, they will find an outlet either into the viscera or externally, but this can be prevented by suitable drainage, preferably by the vaginal route.

The treatment of salpingitis and its accompanying pelvic adhesions forms a large part of the work of the gynaecologist. Amongst 500 consecutive gynaecological operations performed by me at the Royal Hospital for Women, there were 114 that would probably be classified as being due to salpingitis. Apart from these cases there were numerous others that were not treated by operation; they recovered sufficiently to leave the hospital and no doubt a large number of them recovered permanently. In the out-patient department one sees many patients who recover without further treatment than rest in bed at home. The conditions present at operation were as follows:—

	Cases.
Old salpingitis	53
Pyosalpinx	27
Adhesions	16
Hydrosalpinx	11
Pelvic abscess	4
Inflammation of stumps of tubes following incomplete removal	2
Acute salpingitis with general peritonitis	1

Of the 16 cases of adhesions, some may not have been due to salpingitis and the same may be said of the four pelvic abscess cases. The operations performed were as follows:—

Removal of one tube and one appendage	29
Removal of both tubes	17
Vaginal coeliotomy	14
Separation of adhesions	14
Removal of both appendages	10
Removal of left appendage	9
Removal of right appendage	8
Removal of left tube	7
Removal of right tube	4
Excision of stumps of tubes	2
Conservative operation on tube	1

In one case coeliotomy was followed later by abdominal section.

Of the 114 patients all recovered from the operation except one, who was suffering from acute salpingitis and generalized purulent peritonitis. Both the tubes were patent and were discharging pus; they were removed and the abdomen was drained, but the patient died within 24 hours.

Of the others, one had an abdominal section with the removal of one appendage and of the other tube three weeks after vaginal coeliotomy. In another case the patient developed a temporary faecal fistula through the abdominal wound, due to an injury to the rectum during the removal of densely adherent appendages. In a few of the earlier cases there was trouble arising from infected chromic gut sutures, but since I have given up using chromic gut in suppurating cases, there has been no trouble with the abdominal wounds.

In the list of operations I have purposely left out other operations performed, such as the removal of the appendix, the treatment of retrodisplaced uterus, myomectomy or hysterectomy.

You will notice that in 56 cases, approximately one half of the total number, both tubes were completely removed, whereas it has been necessary to remove both ovaries in only 10 cases. Vaginal coeliotomy has

¹ Read at a Meeting of the New South Wales Branch of the British Medical Association on August 29, 1919.

been performed in 14 cases, or 12%, and it has proved to be all that was necessary in all except one. In this case I removed a tubo-ovarian abscess and a pyosalpinx three weeks later.

General Outline of Treatment.

The treatment adopted in any particular case depends upon many factors. There is the age of the patient, whether she has had many children, whether she desires to have children or whether she has to work for her living.

Preventive Treatment.

Thorough treatment of gonorrhœa in the lower parts of the genital tract should tend to prevent at least some of the numerous cases of gonorrhœal salpingitis that occur. I would suggest also that thorough treatment of the lower parts may have some effect in preventing recurrent attacks in the tubes, provided that the husband is treated at the same time. It would be waste of time to treat the wife only, if the husband has a chronic infection as well. We can only hope that the new *Venereal Diseases Act* may help to prevent a large number of these cases. It would certainly help the birth-rate, if it did so.

Curative Treatment.

In all first attacks of salpingitis, treatment should be expectant, unless palpable foci of pus are apparent on examination. In these cases drainage through the posterior fornix is indicated. During the early acute stage of the attack rest in bed is essential and the patient should remain in bed for at least two weeks after all pain has disappeared and the temperature and pulse-rate have become normal. In all except the very mild cases, the patient should have another month of convalescence before she resumes full duties and coitus should not be indulged in for at least two months after an attack. If the husband is treated simultaneously, there would be less risk of re-infection when coitus is resumed.

During the early stages purgation should not be aimed at; the bowels should be kept open by laxatives or simple enemata. Prolonged hot douching is of service during the resolving stage. Pain can be relieved by means of hot flannel stupes, applied in such a manner that there is little pressure on the abdomen. Coal tar preparations may also be used or an occasional dose of morphine, if the pain is severe.

The treatment during the sub-acute or resolving stage is similar to that of the acute stage, but douches may be used. Rest should be as prolonged as possible and should be combined with plenty of fresh air. In the later stages light exercise for an hour once or twice daily may be associated with rest in the recumbent position.

By prolonging the non-operative treatment, quite a number of cures can be obtained which at first sight would not be regarded as probable.

Most authorities recommend now-a-days waiting from four to six weeks after an acute attack before considering an operation. Others wait for six months. The reasons for the prolonged postponement are, of course, that the infective agent tends to die out in salpingitis and operative procedures are less risky. In addition the inflammatory reaction of the tissues

subsides, the tissues lose their friability and the tubes and ovaries resume their normal appearance. The operation is therefore much easier when carried out at a late stage; there is less risk of the ligatures cutting through the tissues; oozing from the separated adhesions is much less and, last but not least, the tubes and ovaries have so far regained their normal appearance that the surgeon may be able to leave organs that he might have been tempted to remove, had he seen them at an earlier stage.

We probably make too little use of vaginal coeliotomy in the earlier stages. In only one of the cases in which I have used it, has it been necessary to perform an abdominal section for the removal of inflamed appendages. I know of two patients who have subsequently become pregnant and have gone to full term. With vaginal coeliotomy we get drainage in the proper direction and it is very striking how the infections clear up after an outlet has been provided for the pus. When the vaginal vault is incised, a large opening should be made so that two or three fingers can be passed through it. A large drainage tube should then be inserted and left in place for five or six days. The large tube is then removed and a smaller one inserted, or the opening dilated with vaginal forceps every two or three days. Drainage for two weeks is usually sufficient.

Some authorities recommend the employment of vaginal coeliotomy in almost all cases of salpingitis, but as a large number of the patients get well with expectant treatment, this does not seem necessary. The most difficult problem is to decide the course of treatment to be adopted in cases with relatively small masses in the pelvis, when the disease seems to be sub-acute from the outset. There is often little or no fever and the inflammatory masses neither increase nor decrease rapidly; the pelvic discomfort persists. In these cases the gynaecologist has often to operate and remove the offending tubes after or, rather, during the first attack.

These cases are often gonorrhœal in origin, but the possibility should always be born in mind that they may be tubercular infections, either without or with a complicating gonorrhœa.

Treatment of Recurrent Attacks.

Recurrent attacks should be treated expectantly during the acute stage. The operative treatment should be carried out four or six weeks after the attack subsides, when the chance of conserving some of the organs is better. In the majority of these cases it is advisable to remove both tubes and to leave one or both ovaries. When excising the tubes, the surgeon should keep as close to the tube as possible to avoid injury to the ovarian circulation. A large wedge-shaped piece should be taken out of the cornua, so as to remove two-thirds of the intra-mural portion of the tubes. Failure on the part of another operator to do this has compelled me to perform a second operation on two occasions.

I do not consider it advisable to curette the uterus as a routine when operating for tubal conditions, as I think that there is a risk of carrying up infection. The condition of the endometrium depends either on the inflammation of the tubes or on displacement of

the uterus. If these conditions are relieved, the endometrium recovers. I have noticed that in cases with marked menorrhagia there is often an ovarian abscess.

Treatment of Salpingitis With Adhesions and Pelvic Discomfort.

Salpingitis complicated with adhesions, leading to more or less marked pelvic discomfort, forms a large proportion of the cases operated upon. In these cases there is often a long period, often extending over years, since the original attack of salpingitis. If there has been no recent attack, it is possible to treat the tubes more conservatively, but if the tube is at all damaged, I think it better to remove it. In many of these cases only one tube shows signs of damage. After the adhesions have been separated and the retro-displaced uterus has been corrected, the patient is left with the chance of becoming pregnant.

You will notice from the list of operations given above that I do not favour conservative or plastic operations on an obviously damaged tube.

Conclusions.

(1) Preventive treatment should have an effect on the number of both first and subsequent attacks of gonorrhoeal salpingitis.

(2) When dealing with patients with first attacks, we should wait for a longer period before considering operation.

(3) We should make more use of vaginal celiotomy in the acute "pus cases."

If these three points are kept in mind, I am sure that many women will be spared from mutilating operations, especially as regards the ovaries. A not inconsiderable proportion will be given the chance of becoming the mothers of one or more children.

Reports of Cases.

SOME OF THE AFTER-EFFECTS OF GUN-SHOT WOUNDS OF THE HEAD AND THEIR TREATMENT.¹

By H. Skipton Stacy, M.D., Ch.M. (Syd.),
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General Hospital.

Struck with the number of gun-shot wounds of the head for which little had been done to relieve their after-symptoms, I began to give this subject my especial attention shortly after my return from the war. There is no doubt that, as individuals, the men suffering from the effects of gun-shot wounds of the head hardly received the consideration they deserved at the hands of the Pension Boards. It has remained for an Appeal Board in many cases to rectify this injustice. The more one sees of them, the more one realizes that very many of these men are not able to resume their pre-war occupation. They frequently suffer from lack of mental concentration, headaches and giddiness; convulsions are also not infrequent, coming on in some cases shortly after the wounding, but in many not for some time after, even months or years.

The dictum of the late J. B. Murphy, that the amount of cerebral injury roughly corresponded to

¹ Based on a Demonstration of Patients at a Meeting of the New South Wales Branch of the British Medical Association, held on July 11, 1919.

the length of unconsciousness at the time of the injury, is, I find, in practice a good working hypothesis. One realizes after experience of a number of head wounds that, though one may relieve the patient of some of his more urgent symptoms, such as headache and giddiness, and even occasionally convulsions, yet time and rest are the most important factors in restoring him to something approaching his pre-war condition.

My practice, then, in dealing with these patients as they return from the war is to ascertain if their headache and giddiness, from which they almost all complain, is improving (even slightly); if so, they are sent to a convalescent home in the country and instructed to abstain from smoking (cigarettes particularly) and alcohol. They are ordered to report in several months' time. The same procedure is adopted in all who have been wounded under nine months, for there is no doubt that rest and quietude are sufficient to restore some to good health. Abdominal surgeons have sometimes been struck by the disappearance of adhesions and inflammatory exudates when they have had occasion to re-open the abdomen some time after the removal of the primary offending substance or organ. It is fair to assume that in the head, with the gradual subsidence of the inflammation, haemorrhage, etc., following the trauma, the parts may be restored to something more normal. For this reason it is unwise to interfere too early, but if with rest, quietude, sedatives and lapse of time there is no improvement, the surgeon should step in, for it is in his power in many cases to give great relief, as is illustrated in most of the patients shown at the clinical meeting of the New South Wales Branch of the British Medical Association on July 11, 1919.

My practice is, under a general anaesthetic and after infiltration of the scalp with 2 c.cm. of adrenalin (1 in 1,000) in 30 c.cm. of normal saline solution, to enlarge the opening which usually exists already in the skull by means of rougheurs to the size of at least half-a-crown or a crown. The bone is sometimes hyperemic, but frequently normal in appearance. If the *dura mater* is not adherent to the cerebral cortex, nothing more is done; but if it is adherent I usually separate the adhesions, stop the oozing thoroughly with hot pads and then interpose a flap of *fascia lata* from the thigh, with the smooth surface lying on the cerebral cortex. It is fixed with a few catgut sutures. This procedure has not been followed by much reaction, except in one case, in which the adhesions were very vascular and were over the Rolandic area; numerous convulsions followed. The patient's manner and behaviour were queer for some time, but he gradually became normal. Unfortunately he has been lost sight of during the last twelve months, so I could not present him at the meeting. Naturally, rigid asepsis is necessary in these cases. In one there was a flaw in the chain; suppuration ensued, causing a prolonged convalescence and ending in *statu quo*.

The introduction of *fascia lata* was advocated by J. B. Murphy for cases of Jacksonian epilepsy, on the assumption that adhesions of the *dura* to the cerebral cortex were a very frequent source of convulsions. I have used the method in civil cases with

moderate success. Several patients in the present series have got relief from their headache and giddiness, but whether the same result would have been achieved by the mere removal of bone and without the interposition of fascia I would not care to say. With regard to convulsions, they certainly seem to have been diminished; but one cannot claim to cure. But there remain some cases which are not relieved by the mere enlargement of the bony opening. For these I have performed sub-temporal decompression with the most satisfactory results. Case III. is an instance; his sufferings were intense until that was performed. Since then he has improved in a wonderful manner. In Case VI. the increase in amount and in pressure of the cerebro-spinal fluid was marked; there was no wound, either of scalp or skull.

Repeated lumbar puncture might benefit some cases; but I have not given it an extended trial, partly because the procedure is a painful one in a "well," muscular soldier; very different from doing it in the semi-stuporous condition of cerebro-spinal meningitis or of recent head injuries. For both of these conditions I have done it hundreds of times with much relief.

To summarize the treatment:—

(1) For those under six or nine months since wounding and for those showing improvement, prescribe rest, sedatives, quietude, etc..

(2) For those whose chief trouble is headache and giddiness and who do not come under paragraph (1), either removal of bone around the old skull wound (a simple and safe operation), or, if this fails, sub-temporal decompression on the same side of the head as the wound; in cases of doubt, on the right side.

(3) From those in whom convulsions are a feature and the *dura mater* is found to be adherent, interpose *fascia lata* after having enlarged the bony opening. This procedure has also given relief where there was merely headache without convulsions.

Generally speaking, I have found those patients fairly free of symptoms who returned to Australia with a moderate-sized opening in the skull. Hence I have hesitated to close the opening with bone grafts (of rib, etc.), preferring to leave them alone, recommending them to wear an aluminium or celluloid shield for protection, if the opening is a large one. On the other hand, I have noticed that some on whom an operation has been performed, when they came under my notice at the Pension Appeal Board, were decidedly worse.

Appended are some of the cases. They are representative of all, with the exception of the one that suppurated. Of this I have not the notes; after a prolonged illness the patient ended up about *in statu quo*.

CASE No. I.—G.C.M., *et. 24.*

History.—The patient had an accident when he was 14 years old; he was thrown off a horse. He had two fits afterwards within 14 days and was unconscious for 24 hours and afterwards had a persistent headache. There were no other symptoms until he went on active service. He had a scalp wound on the vertex. In December, 1916, after having had some drink, he had a convolution. Three months later he was thrown off a horse and was unconscious for 24 hours. After that he worked for 14 days and then convulsions set in again and in consequence he was repatriated.

Operation.—On August 1, 1918, a decompression was performed on the vertex just in front of the occipital bone.

Results.—Before operation he had intense recurring headache and fits since his fall. Since the operation the headaches are almost completely relieved and the giddiness is completely gone. He has only had two convulsions since, at long intervals.

CASE No. II.—F.E.F., *et. 25.*

History.—The patient was struck with a piece of high explosive shell in March, 1918. He was not unconscious, but was giddy for about an hour. He was repatriated in consequence of this. He had headaches and giddiness and when attempting to run he had a tendency to fall forward. He could not walk in a straight line and deviated more to the right than to the left. There was no Rombergism and no convulsions. On examination evidence of a scalp wound and a depression in the posterior portion of the left parietal bone, near the middle line, was detected.

Operation.—A local decompression by two trephine openings was performed.

Results.—He has had no headaches or giddiness since, except on two occasions, when they lasted for about one or two hours, and he can now walk normally. The patient says that after the operation he felt as if a weight had been lifted off his head and when he got out of bed he was able to walk perfectly straight.

CASE No. III.—R.A.H., *et. 28.*

History.—The patient had a gun-shot wound (high explosive) of the right frontal bone. He was unconscious for 48 hours and thereafter had persistent headaches and fits. The latter started as soon as he could remember and persisted for two years at varying intervals. Sometimes he had two or three a week; at other times he had sixteen or twenty consecutively. He has also had marked giddiness and blurring of vision.

Operation and Results.—The operation (on January 2, 1919) consisted in a local decompression and separation of the *dura mater*, which was adherent to the cortex, and interposition of *fascia lata*. After this he had no relief. He was further operated upon in March, when a decompression was performed in the region of the left parietal bone, as the headache was mostly located there. No relief followed. A third operation was performed three weeks later, when a subtemporal (right) decompression was performed. This resulted in great relief on the second day; the relief has remained ever since. The patient has had slight giddiness occasionally, but no convulsions.

CASE No. IV.—J.H.S., *et. 25.*

History.—This patient sustained a gun-shot wound of the right frontal bone on September 26, 1917. He was unconscious for 24 hours and after that became very excitable. He had occasional bad headaches for the first few weeks, which persisted on his return to Australia. He also had delusions of persecution and convulsions (on about five occasions) prior to operation.

Operation.—November 1, 1918. Local decompression, with interposition of *fascia lata*, was carried out.

Results.—Since the operation he has had one convolution whilst in hospital and one since his discharge. He has had no delusions and has been working for six months on the railway. Headaches are now rare.

CASE No. V.—B.C., *et. 26.*

History.—The patient had a gun-shot wound of the head on April 6, 1918. He was unconscious for three weeks and blind in his sound eye for two days after he regained consciousness. After regaining consciousness he had headache and giddiness, but no convulsions.

Operation.—October 24, 1918. Local decompression, with separation of the adherent *dura mater* and interposition of *fascia lata*, was performed.

Results.—The operation was followed by great relief from the headache and total relief from the giddiness. Later, headache, although much relieved, was still present to some extent. A subtemporal decompression was performed a few days ago. It is too early to record the result.

CASE No. VI.—J.G., *et. 33.*

History.—The patient sustained a gun-shot wound in the left temporal region of the head on August 4, 1918. He was unconscious for two hours, leaving him with a frontal head-

ache and later continuous giddiness, but no convulsions. He was repatriated.

Operation.—May 15, 1919. A subtemporal decompression was performed. The veins were found congested and cerebro-spinal fluid escaped under pressure.

Results.—He has been much relieved ever since. He still has a few mild headaches, but no giddiness.

CASE NO. VII.—A.J.H., *et. 25.*

History.—The patient suffered a gun-shot wound in the left temporal region, across the zygoma and the pinna of the ear, on October 4, 1917. A piece of shell was extracted from the depth of the wound at the casualty clearing station. He was semi-conscious for only 18 days. On regaining consciousness he had a violent headache on the left side of the head, with dizziness and destruction of hearing on left side. There were no convulsions. This state continued until the operation.

Operation.—On November 27, 1918, a left subtemporal decompression was carried out.

Results.—He only has a headache now about once a fortnight and it lasts for about two days, whereas before the operation they were continuous. He has a discharge from the left ear. He is not able to continue his employment as a traveller, as he cannot concentrate his mind.

CASE NO. VIII.—J.J.R., *et. 21.*

History.—The man received a gun-shot wound of the vertex on June, 1917. He was unconscious for some time and subsequently had headaches and giddiness almost continuously. He had no convulsions. He was afterwards repatriated.

Operation.—February, 1919. The operation performed was a local decompression just in front of the vertex.

Results.—The headaches were relieved until three weeks ago, as was the giddiness; but since then he has had trouble with both, especially on bending down. His condition, however, is much better than before the operation. He has not been able to carry on his old occupation, on account of giddiness.

CASE NO. IX.—A.A.A., *et. 27.*

History.—This man had gun-shot wounds of the right parietal region on August 31, 1918. He was not unconscious. There was headache and numbness in the left hand and loss of sensation in the tips of fingers. A foreign body was removed in France; the *dura mater* was trimmed. A *hernia cerebri* was present. On returning to Australia he had headaches (chiefly occipital), with giddiness and convulsions. The first convolution occurred the day after operation and another within a day or so thereafter. He also had another convolution in January, 1919. He was seen by me in February and sent to a convalescent home, and whilst there the headaches continued to improve. He has no more convulsions and his chief trouble now is *tinnitus aurium* and dizziness. The numbness in the left hand has practically gone. He has progressively improved ever since six weeks after the wound.

CASE NO. X.—W.G.H., *et. 44.*

History.—This man sustained a gun-shot wound in the left frontal parietal region on June 20, 1918. He was unconscious for two hours and afterwards complained of severe headaches and giddiness, but no convulsions. He was repatriated and suffered until the operation.

Operation.—Local decompression was carried out, but with no relief. Six weeks later a left subtemporal decompression was performed with much relief. He felt so well that he decided to get married on leaving hospital.

Results.—He still has headaches on about two or three days a week and also giddiness.

CASE NO. XI.—C.A.H., *et. 45.*

History.—The patient sustained a gun-shot wound of the vertex in August, 1916. There was unconsciousness for about a day and afterwards he had headaches and giddiness almost continuously. No convulsions occurred.

Operation.—In January, 1919, a local decompression was carried out.

Results.—Since the operation he has had headaches, but not so severe, and the giddiness is completely relieved. The headaches were very much relieved until about four weeks ago, when there has been a recurrence, due, he thinks, to financial trouble. He does not feel up to pre-war work.

PROBABLY RADICAL CURE OF MIXED PSORIASIS OF FOURTEEN YEARS' STANDING.¹

By A. Krakowsky, M.D.,
Renmark, South Australia.

S.D.S., aged 53, was admitted to the Renmark District Hospital on February 25, 1918, suffering from chronic *psoriasis annularis* and buccal psoriasis.

Family History.—The patient stated that his father had suffered all his life with asthma and eczema on his chest and arms and that his nails had been very long and not like ordinary nails. He died when 58 years of age. His mother was a healthy girl before marriage, but after her first child (his elder brother) was born she noticed a rash and later on patches, especially on her knees and elbows. After a few years the rash spread all over the body and, although she constantly took medicines and ointment from London hospitals, she suffered with the disease up till death, when 54 years old. Two sisters, both suffered with chest trouble and some sort of eczema. One brother died of asthma at 38 years of age. He does not know if he had any skin disease. A second brother went into the Navy; he knows nothing about his condition. A third brother is in Lincolnshire, England, and also suffered with some kind of eczema "when I left him."

Personal History.—The patient was born in London and left there fourteen years ago quite well. A few days after landing in Sydney he became feverish, with severe headache and pain in fingers and toes. He consulted a doctor and was better for the treatment, but he noticed that from that time his nails became harder and curved upwards and later on rashes appeared on different parts of the body, especially on the upper and lower extremities, and also in the mouth and on the tongue. The rash was associated with considerable irritation. He was treated at the Melbourne Hospital for four months and left, having greatly improved, but after a month or so the rash reappeared, and on this occasion spread all over the body. He was re-admitted to the hospital for X-ray and other treatment. After three months he was discharged as cured, but his tongue and mouth were still slightly affected. For four months his condition was unchanged, but at the end of that time the old trouble began again and the rash gradually spread all over the body. He lived for the next twelve years in different parts of Australia, chiefly in the bush, using all sorts of ointments, but without any success.

Examination.—The patient was well built, but poorly nourished, being in a general asthenic condition. Upper extremities were covered with well-defined scaly patches, from 1.25 cm. to 7.5 cm. in circumference, with raised edges. Some of them were more than 0.6 cm. in thickness, resembling *psoriasis rupestris*. These patches were most marked over the olecranon process of the ulna. Some of the crusts could be detached, leaving a reddish base, showing dilated capillaries, which bled readily, but many of the lesions were clear in the centre, leaving a scaly periphery. The nails were thickened with longitudinal furrows, the distal part raised upwards and very brittle.

Lower Extremities.—The patches resembled those on upper extremities, but were larger; on the patella they were very hard and parts of the scales could only be detached with difficulty.

Thorax.—Both anteriorly and posteriorly there were minute, irregular papules, dark grey in appearance, firmly fixed and looking like dry, pearly scales. In some parts they resembled a typical case of *lichen planus*, with wide, flat, circumscribed patches.

Abdomen.—The patches were not so marked and were thinner, somewhat resembling a ringworm.

Mouth and Tongue.—There were present red, smooth, glazed plaques of thickened epithelium and also some dry, minute, horny patches.

Scalp.—On the head the scales were larger and more adherent.

Treatment.—Internally.—Iron, strychnine and arsenic were given in full doses, arsenic (Fowler's solution) in 0.3 mil doses and gradually increased to 0.72 mil per dose three times a day for three weeks. For the next two weeks *sod.*

¹ Read at a Meeting of the South Australian Branch of the British Medical Association on July 31, 1919.

cacodyl. (0.18 grm.) was given hypodermically each day. Then iron and strychnine (without arsenic) were given for the following two weeks. Finally *sod. cacodyl*. (0.18 grm.) was given hypodermically every second day up till day of discharge. Extract of malt with cod liver oil was given regularly while he was under my care.

Externally.—The first application was as follows:—

R—
Ol. chaulmoograe, 240 c.c.m.
Resorcini, 30 grm.
Ol. lavand., 30 c.c.m.
Glycerini pur., 120 c.c.m.
Ol. oliv., 120 c.c.m.

Lint soaked with this solution was applied twice daily on the affected parts for ten days. Most of the scales disappeared and I then applied the following ointment:—

R—
Ichthyol, 20 grm.
"Aristol", 14 grm.
Bismuth subnit., 30 grm.
Lanolini, 90 grm.
Petrolati albi, 150 grm.

The remaining scales had completely disappeared from the body within fourteen days, as had the upper layers of the cuticle, and I found it necessary to apply the following emulsion:—

R—
Ac. carbol., 1.8 c.c.m.
Liq. calcis
Ol. lini, aa 180 c.c.m.

I continued the cacodylate of soda for so long in order to clear the mouth and tongue. This treatment was successful, and he was discharged on May 5, 1918, quite free from the disease.

From information up to date, the man is in perfect health and follows his trade as carpenter, so that I now feel justified in reporting the case.

Reviews.

MEDICAL CLINICS.

Number 1 of Volume 2 of *The Medical Clinics of North America* (July, 1918)¹ is to hand. This is a most excellent publication, dealing with a very wide range of subjects, and physicians and medical practitioners generally will find it invaluable. The subjects dealt with in the current issue are all of very great interest and are contributed all by different clinicians. The following are the subjects: hypertension of Clifford Albutt (essential hypertension), the relation of pulmonary tuberculosis to general practice, streptococcal and influenzal endocarditis, the minor and misleading early symptoms of disease of the heart and circulation, unusual cases of aneurysm of the thoracic aorta, acetone body, acidosis in children, epidemic meningitis, clinical conditions characterized by obstructive jaundice and a survey of the hemorrhagic diseases. Other contributions contain points which might be briefly noted. W. H. Park, in dealing with practical immunization against diphtheria, observes that over 1,000 infants and children have been under observation who were susceptible and became immune through injections of antitoxin. They were tested at the end of one and two years and some at the end of two and a half years. Only 2% of those who became immune, had apparently relapsed and become susceptible. It seemed as if a person becoming actively immunized, developed a condition similar to that in a naturally immune patient. The stimulus to produce antitoxin by giving toxin-antitoxin injections incites the cells to produce without reference to any further stimulus of the toxin. Wilson's disease, progressive lenticular degeneration, by F. Tilney, is admirably illustrated, showing characteristic attitudes and morbid anatomy, microscopical and gross. W. N. Niles deals with non-tubercular pulmonary infection and states that pneumococci have been found in the majority of cases reported. Influenza bacilli are next in

frequency and various types of streptococci are occasionally mentioned. The pathology is obscure because the disease is rarely fatal. In one necropsy the lesion was a localized bronchitis with infiltration of the bronchial wall and foci of broncho-pneumonia about the smaller bronchi. From the physical signs and radiograms it seems fair to conclude that the lesion is always of that nature. W. J. Heimann, in dealing with the relation of internal disturbances to dermatological conditions, makes some salutary observations on the "now popular medical tango of focal infection." "The *streptococcus viridans* and other streptococci, tucked away in a tooth abscess, or a tonsil, or even an appendix, may and do produce far-reaching results in the joints and heart valves, and they may and unquestionably do produce some skin reactions. But the pendulum has swung too far. They do not and cannot explain every cutaneous disease from the pimple on a young girl's chin to a prickle-celled cancer, as some of the protagonists maintain. . . . It was stated by one of the speakers that he had seen in two patients, *dermatitis herpetiformis* disappear after some offending teeth had been extracted. On the other hand, I myself have seen a case of *dermatitis herpetiformis* for the first time make its appearance after similar dentistry." M. H. Bass gives a study of the cutaneous manifestations of acute rheumatic fever in childhood, and states of *erythema nodosum* (recently declared to be tubercular in origin): "Although there is much in favour of the view that *erythema nodosum* is a specific disease entity, there are so many instances reported of its association with other rheumatic symptoms, that I believe one is forced to conclude that, at times, this manifestation must be due to the rheumatic toxin." Cheadle is quoted to the same effect. The primary myopathies and their endocrine relationship is contributed by S. P. Goodheart. It is excellently illustrated. The author is of opinion that *myasthenia gravis* is etiologically related to perverted endocrine activity. No one gland can be positively identified. Primarily there is much to suggest thymic influence. Myasthenia associated with exophthalmos and pigmentation of the skin, as seen in renal insufficiency, etc., repeatedly observed, suggests pluriglandular activity.

INDUSTRIAL HYGIENE.

Great Britain has long enjoyed the reputation of being the birth-place of hygiene and of having taken and maintained the lead in matters appertaining to this science. Industrial hygiene has occupied the attention of the Government for many years. In the Home Office there is a large and well-organized department, called the Factory Branch. The activity of this department has resulted in many of the most important advances in industrial hygiene. We need but to mention the names of Whitelegge, Legge, Collins, Duckering, *inter alia*, to substantiate this claim. This activity covered problems in mines, in the various dusty trades, in cotton spinning works, in electric power works, in the tanning trade and so on. Up to the present no attempt has been made in the Commonwealth to handle the whole scope of industrial hygiene. Certain aspects have been dealt with, both by departmental committees and by individuals. Much more could be done to safeguard the health of the factory worker and to eliminate unnecessary risks to life and limb. A new journal has been started in Massachusetts, called *The Journal of Industrial Hygiene*. Its objects are to present to those interested in the welfare of the working community problems that have to be investigated and solved in the near future. The articles in this excellent periodical are written by competent experts and it should be regarded as the special organ which should be consulted in connexion with factory and industrial health matters. The journal contains a good review of current literature dealing with the subject matter. There is, however, no editorial section. This is a defect, as many of the problems require a co-ordinating mind to exercise a steady influence and to prevent exuberance by the application of a balanced criticism. This defect could easily be remedied. We wish the journal a prosperous career. Messrs. Angus & Robertson, of Sydney, are the Australian agents. The subscription is £1 8s. a year. It appears in monthly issues.

¹ The Medical Clinics of North America, published bi-monthly, Number 1, Volume 2, New York Number, 1918 (July). Philadelphia and London: W. B. Saunders Company; Melbourne: James Little. Demy 8vo., pp. 311, with illustrations. Yearly Subscription: £2 2s.

The Medical Journal of Australia.

SATURDAY, SEPTEMBER 20, 1919.

The Problem of Venereal Disease.

The analysis published by Dr. J. H. L. Cumpston, the Director of Quarantine, of the early results of the experimental legislation dealing with venereal disease, reveals that success will not be achieved unless those responsible for the administration of the Acts make full use of the powers granted them and unless the Governments standing behind them are prepared to make provision for the full exercise of these powers. The experience in Western Australia gives promise of a marked degree of success in controlling venereal infections. From the records it is evident that a great deal of good can be effected, notwithstanding the admitted difficulties surrounding the problem. It is obviously unwise and useless to attempt to draw comparisons between the results achieved in the four States in which legislation of this kind is in operation. The conditions obtaining in the States vary widely. While the administration of an act based on compulsion must necessarily be more difficult when a small population is spread over a vast area, it is equally obvious that the migratory character of a large metropolitan population carries with it special difficulties in securing adequate control. Moreover, lethargy on the part of the responsible Governments in providing facilities for reliable diagnosis and for up-to-date treatment must result in failure. From the records placed at our disposal by Dr. Cumpston it would seem that the limitation of success is likely to be due more to the way in which the provisions are put into effect than to the defects in these legislative provisions. Grave doubts have been entertained from the first whether the authorities would be strong enough to apply the punitive clauses with sufficient rigor to compel people to obey the law. Experience shows that there is some ground for these doubts. We learn that up to the present not a single prosecution has been instituted in any of the States for the offence of a person having knowingly infected another with a venereal infection. Since the four Acts have

been in force over 10,500 infections have been notified. Is it conceivable that the disease was transmitted in the majority of these cases unconsciously? Another source of failure arises from the extreme difficulty in compelling unwilling patients to continue under treatment. Under the existing arrangements, varying, it is true, in the four States, no less than 1,818 persons have been reported to the authority responsible for the administration of the acts for alleged neglect to continue under treatment. The machinery provided enabled the authorities to trace exactly 50% of these persons. It is impossible to determine with accuracy the causes of the lapses in every case; they are probably varied and manifold. On the other hand, it seems to be certain that fewer failures would be registered if a better co-ordination were evolved between the authorities and the medical practitioners and if special machinery were created for a thorough and well-organized campaign, aiming at both the prevention of infections and the cure of the existing disease.

It is not suggested that the Venereal Diseases Acts have been proved to be failures. Far from it. The experience up to the present would tend to show that with little modification they should suffice to bring about a great reduction in the amount of gonorrhœa and syphilis in the Commonwealth. The attainment of this object could be assured if medical practitioners would recognize every venereal infection existing in their patients. In order to insure this it would be necessary to institute a close co-operation between the general practitioner and the laboratory worker. The number of expert bacteriologists, competent to carry out the microscopic and biological investigations on which a modern diagnosis of venereal diseases depends, must be largely increased. Means must be found to tempt more of our students and young graduates to take up this branch of medical practice. In the next place arrangements should be made whereby the peculiar knowledge of the treating practitioner may be used for tracing the source of infection in every instance. This information would form the key stone of the whole position. It is suggested that the authority should be given power to enlist the co-operation of the general practitioner for the purpose of discovering the "previous case" and to pay him adequately for the valuable assistance he could

render. The discovery of the source of infection would enable the authority to prescribe adequate treatment and to take precautions to insure that the patient does not pass on the infection to other victims. Pity, mercy, consideration of feelings, the desire to avoid scandal are out of place in this connexion. The welfare of the race is at stake and neither wealth, position nor other personal considerations should stand in the way of rigorous treatment and control until the individual is no longer a menace to the public health. No distinctions should be made between the sexes; men should be compelled to submit to the requirements of the law as well as the trampled-on prostitute. All the available information should be utilized to prevent infections. If the services of the general practitioner were enlisted, he would soon realize the importance of the rôle he was expected to play. Once persuaded of the possibility of reducing the incidence of venereal infections, he would throw himself heart and soul into the work. The public would stand behind him, when they realized that by collaboration with the authorities, the general practitioners of the Commonwealth were steadily stamping out a devastating and crippling disease, which stands as a blot on our vaunted civilization.

The necessary corollary to this prophylactic activity on the part of the general practitioner is efficient treatment. It would be useless to catch the "previous case" unless he were treated until cured. The patients infected from this source must also be treated on the most approved lines. Mere control of an infective individual is dangerous. The task of getting rid of the infectivity rapidly is often difficult. Dr. Potter demonstrated how difficult it is in the case of gonorrhœa in our issue last week. The cure of syphilis is not less full of pitfalls. The campaign must therefore include a scheme for the better education of medical practitioners in the modern methods of treatment of these infections. There are many means available to bring about an improvement in this direction. Perhaps the most practicable would be the institution of gatherings, small and large, in every district throughout the Commonwealth at which experts or specialists would undertake to demonstrate the practice that had proved best in their hands. These lecture-demonstrations should be paid for by the author-

ity responsible for the administration of the act, for it would be unreasonable to expect men with wide experience to devote much time and energy without adequate recompense. This is the machinery needed to render the new legislation against venereal disease an unqualified success.

THE REGISTRATION OF NURSES.

The Chief Secretary and Minister of Public Health of Victoria moved the second reading of a bill for the registration of nurses in the Legislative Assembly on August 21, 1919. The debate was adjourned until August 26 and was subsequently resumed on September 10. In the interval strong protests against the proposals included in Section 4 of the Bill were made by the office-bearers and members of the Royal Victorian Trained Nurses' Association and by others having an interest in the profession of nursing. The clause provides for the appointment by the Governor in Council of five members of the Public Service Board of Victoria as a board to be called the Nurses Board. It is reported that the Minister has resisted the demand that the board shall not be a departmental committee, but that it shall be a body representative of the interests concerned in the measure.

The Government apparently has failed to recognize the functions and duties of the Nurses Board, notwithstanding the fact that its powers and duties are set out in clear terms in Section 5. It is strange that the suggestion should be put forward that a body of State officials should be entrusted with the machinery for conducting examinations, with regulating the practice of nursing, with the control of professional life and with the maintenance of a proper standard of nursing for the general community. These functions demand expert knowledge of the science and art of nursing, an intimate acquaintance with the details of training, experience in the maintenance of discipline in institutions and a keenness in raising to, and holding at, a high level the honour and dignity of a noble profession. Where are the experts in nursing in the Public Service? How many members of the Public Service have taken an active part in the planning and conducting of the course of training of probationers and of the examinations to test the knowledge and skill of the candidates?

Have any members of the Public Service had charge of nurses in a public hospital? Have any of them studied the relations of nurses to one another and to the public? Unless the Minister can accept the suggestion of deleting the reference to a Public Service Nurses Board, the measure would be rather a menace to the public than a protection and would certainly not tend to raise the profession of nursing.

From the discussions which have already taken place on this important subject, it transpires that the hesitation to establish the board on common-sense lines is due to an imaginary difficulty in determining the interests that should be represented. We venture to claim that an analysis of the functions of the board reveals at once that the matter is plain and devoid of embarrassing difficulties. In the first place the only experts in nursing in existence are the nurses themselves. It therefore follows that the profession of trained nurses must have representation on the board and, furthermore, the representatives of the nurses should be in an absolute majority. Moreover, the only persons who have to maintain discipline among nurses at public hospitals are the matrons, who are nurses. In Victoria, there is only one organization that can speak in the name of the nursing profession—the Royal Victorian Trained Nurses' Association. Indeed, it may be said that the only body that has hitherto undertaken the training of the probationers, that has set up an ethical standard for nurses and that has attained a high degree of professional excellence is the Royal Victorian Trained Nurses' Association. The nurses' representatives must, therefore, be nominated by this body. The training of nurses is effected to a large extent by medical practitioners. The nurses' work is directed by medical practitioners and the interests of the patients depend on a happy co-operation and inter-dependence of the medical and nursing professions. It is consequently essential that the board should have representatives of the medical profession. If the Government insists on the retention of some of the controlling influence in its own hands, it could reserve itself the right to nominate two members of the board, but these members should be a nurse of standing and a medical practitioner who has had actual experience in the training of nurses. There are no other interests involved. To place other persons on the board

means the introduction of interference by bodies who have no just claim to representation.

There is one other grave defect in the bill. It does not make it an offence for a woman to practise as a nurse for gain without having previously been registered. No one would wish to prevent neighbourly acts of kindness, which frequently pass under the misapplied term of nursing. These acts of kindness are valuable in a number of ways and in a number of instances. They should therefore be permitted and even countenanced. But the public should be taught clearly that the neighbourly act and trained nursing are totally different things. When the patient is required to pay for the services of a nurse, the latter should be trained and registered. In no other way can the public be protected against imposture and charlatanism which exists in regard to nursing as it does in regard to the treatment of disease and which does incalculable damage in both. Section 15 of the Bill requires amendment in the direction indicated.

THE MEDICAL OFFICERS' RELIEF FUND.

In our issue of August 16, 1919, we published the first list of contributions to the Medical Officers' Relief Fund. The Trustees estimated that £50,000 would be required to enable them to carry out the objects of the Fund. The Trustees stated in the circular issued to the members of the medical profession that this sum represented a little less than £20 per member of the Branches of the British Medical Association in Australia. The appeal is made to those who have not served overseas, although some returned men who are in a position to do so, are claiming the right to assist. The average, calculated on the basis of the men who did not go, will be considerably higher than £20, if £50,000 are to be collected. After approximately eight weeks, out of a total of, let us say, 1,800 men who did not go, 152 have contributed £5,194 18s., or an average of £34 3s. each. There are several returned men among the contributors. Of the 152, 104 have given £20 or more, while 18 have given £100, two have given £150 and one £250. These contributions would be regarded as large donations under ordinary conditions, but when the objects of the Fund are taken into consideration, we cannot but express some disappointment that larger sums have not yet

been contributed by some of the leaders of the profession who were unable to undertake active service abroad and who have earned very considerable incomes during the war. We would appeal to those who have not yet subscribed, to do so soon. The Federal authorities require each person to invest six times the amount of his annual Federal Income Tax calculated on a three years' basis. Buy Peace Loan and hand the bonds over to the Trustees as your contribution to the Fund. You will discharge a double duty in this way.

OXYGEN IN VENOUS BLOOD.

The cells of the animal body continually receive oxygen from the blood and continually give up to the blood the carbon dioxide formed in their metabolism. This interchange of gases between the tissues and the blood is called internal respiration. In the lungs the blood takes up oxygen from the air and yields to the atmosphere carbon dioxide. This exchange is named external respiration. The two processes of respiration are intimately dependent upon each other. By measuring the amount of oxygen absorbed into the blood from the inspired air in a given period of time an estimate can be obtained of the quantity of oxygen supplied to the tissues from the blood. This information can be used in many ways in elucidating the problems of metabolism. It is, however, necessary for certain purposes to obtain a more precise knowledge of the way in which oxygen is leaving the blood. For this purpose measurements have been made of the percentages of oxygen in arterial and in venous blood. The oxygen is found in the blood in combination with haemoglobin. The quantity of oxygen that can be taken up by a given weight of haemoglobin has been accurately measured. The blood in its passage through the lungs is, for practical purposes, saturated with oxygen. It follows that the oxygen capacity of arterial blood can be calculated from a knowledge of the concentration of haemoglobin in the blood. Not infrequently the percentage of haemoglobin in a sample of blood is estimated by measuring the quantity of oxygen absorbed when the blood is shaken vigorously with air. In the study of some problems research workers have taken small quantities of venous blood and have measured the amount of oxygen present. By estimating the haemoglobin or by shaking with air and again measuring the amount of oxygen present the capacity of the blood for carrying oxygen can be discovered. From the measurements of the concentration of oxygen in the venous blood and of the amount of oxygen that can be carried when the blood is saturated with oxygen at the tension of oxygen in the atmosphere, it is easy to calculate the reduction in concentration of oxygen during the passage of the blood through the capillaries of the tissues.

A series of studies on the amount of oxygen in human venous blood have been carried out in the Medical Clinic of the University of Copenhagen by

Christen Lundsgaard. He finds that the oxygen content of venous blood is dependent upon variations in the rate of metabolism of the tissues drained by the vein from which the blood is withdrawn, as compared with the rate of oxidation in the remainder of the body, upon variations in the rate of flow of the blood through the tapped vein and upon variations of the volume of the blood flowing through the heart during each minute. Dr. Lundsgaard points out the need of basing conclusions on the difference between the amount of oxygen in venous blood and the total oxygen capacity of the blood and not on the absolute value for the amount of oxygen in the venous blood. This difference he calls the oxygen unsaturation of the sample of venous blood. In his latest contribution¹ he deals with the oxygen content and oxygen unsaturation in the venous blood of a series of patients in which the haemoglobin varied over a wide range. Nine patients with anaemia and one with polycythaemia have been thoroughly examined. Throughout the series the concentration of haemoglobin in the blood has varied from 27% to 181% as compared with the amount of haemoglobin in the blood of the average healthy person. The oxygen-combining power of the blood has thus varied from 5.0% to 33.4%. The lungs were found quite healthy in all the subjects submitted to examination. Estimations were made during a period of several months on each of the patients. Two samples of blood were taken upon each occasion. The amount of oxygen was measured by Van Slyke's method.

The whole of the results have been examined by plotting them on a graph in which the abscissæ represent oxygen-combining power in volume percentage and the ordinates haemoglobin percentage as usually measured. The total oxygen-combining power of the blood is represented by a straight line lying at an angle of 45° and passing through the zero point. Since the oxygen unsaturation varies in normal persons from 2.5 to 8 volumes per cent., two lines have been drawn parallel to the line of total capacity at distances representing the loss of 2.5 and 8 volumes per cent. of oxygen. It is seen that all the results of this inquiry lie between these two lines. The graph for the whole of the results has been drawn and is found to lie parallel to the other graphs, but intermediate, representing an oxygen unsaturation or desaturation of the venous blood of 5.5 volumes per cent.. These results have been obtained upon persons who had taken no food for two hours and who rested on a bed for ten minutes before samples of blood were withdrawn.

It would appear from these results that the amount of oxygen removed from the blood during its passage through the capillaries of the body in resting persons is independent of the total oxygen capacity of the blood. This fact is of importance for the understanding of the circulatory mechanism in patients with anaemia. Since haemoglobin is the only carrier of oxygen in the blood, the question has arisen as to the way in which anaemic patients compensate for the decrease in oxygen-combining power of the blood. At one time it was supposed that no compensation was needed, as it was thought that the rate of metabolism

¹ *Journ. Exper. Medicine*, Vol. XXX., p. 147, August, 1919.

was lower in anaemic patients. Experiments showed, however, that the metabolism is not diminished in patients suffering from anaemia. Some other hypotheses have been advanced. Hoppe Seyler and Bohr suggested an increased oxygen capacity in the haemoglobin or an increased "specific capacity." Since there has been demonstrated a proportionality between the colour index and the total oxygen capacity, this view is now untenable. Others have suggested an increased speed of circulation, while others have supposed an increased percentile consumption of oxygen. The results of this investigation show that the average consumption of oxygen is 5.5 volumes per cent. Since the blood usually contains 18.5 volumes per cent. of oxygen, there is a reserve margin of 13% oxygen. Not until this reserve has been drawn upon and the haemoglobin has fallen below 30% of that normally present does any need for some compensatory mechanism arise. When the haemoglobin falls below this value, the output of the heart is increased.

ARSENIURETTED HYDROGEN POISONING.

In the old days of balloons, poisoning with arseniuretted hydrogen was not an uncommon occurrence. The gas employed for filling the balloons was frequently carelessly made and carelessly handled, and the impure acid and impure zinc employed frequently contained arsenic. In these instances few endeavours were made to determine the concentration of the gas in the atmosphere inhaled. In addition, poisoning with this gas in the laboratory has been noted from time to time. Relatively little experimental work has been conducted to ascertain the method of action, the minimum lethal concentration and the chemistry of the dissociation products. It has been assumed that arseniuretted hydrogen attacks the red blood corpuscles, haemolyzing them and giving rise to a symptom complex of haemoglobinaemia and haemoglobinuria. Clinical experience has shown that the gas is intensely toxic and that when accidents occur in the laboratory, death usually results, even after short exposure to relatively low concentrations. Surgeon Lieutenant-Commander Sheldon F. Dudley, Royal Navy, publishes an interesting account of a series of instances of arseniuretted hydrogen poisoning resulting from the use of battery girds on two submarines made of alloys containing an excessive amount of arsenic.¹ It is unfortunate that no attempt was made to ascertain the concentration of the gas in the atmosphere within the chambers of the submarines, as the absence of data leaves us in the dark concerning the amount of arseniuretted hydrogen that can be inhaled without killing any of the persons exposed. No doubt the exigencies of active service precluded the author from carrying out these investigations. The two submarines did two trips each, while one did a third, short trip. The boats were submerged on an average seventeen hours a day. There were fifty-six men on board the two boats and of these thirty had symptoms of sufficient severity to necessitate treatment in hospital, fifteen went off duty for a day or two, ten had mild symptoms, but did not

go off duty and the fifty-sixth man did not experience any ill effects. The chief symptoms were vomiting and dyspnoea, while haemoglobinuria, albuminuria, jaundice and mild neuritic signs were present in the majority of the patients. The urine was noted by the men themselves to be brown to blood red in colour. In many cases the colour was due to haemoglobin, but in some it was probably due to bile pigments. The diagnosis was made as a result of an investigation by Haldane, who found arseniuretted hydrogen in the gas from the batteries, from the determination of haemoglobin in the urine and from the discovery of arsenic from the urine, hair and nails of the patients. The blood changes corresponded to a severe anaemia in several of the patients. The red cells were greatly diminished in number. The lowest count was 1,780,000 per cubic millimetre. The haemoglobin content was lowered to between 50% and 60%. No details are given of the method employed in the estimation of the haemoglobin content. In the majority of cases there was a leucopenia with a relative lymphocytosis. Nucleated red cells were detected in some cases and a few of the films taken early revealed slight polychromasia. The blood of two men was found to be profoundly affected. There was a general basophilia, poikilocytosis and punctate stippling of the red cells. In short, the changes were indistinguishable from those of pernicious anaemia. Of considerable importance is the observation of an unaltered fragility of the red corpuscles. The author points out that there were no signs of an irritant action on the respiratory mucosa. The quantity absorbed was sufficient to produce nephritis changes. He assumes that after the gas has passed through the alveolar epithelium, the arsenic enters into combination with the red blood cells and these altered cells are dissociated in the liver. He refers to some experiments which show that when arseniuretted hydrogen is passed through citrated blood or a suspension of red cell, no haemolysis takes place, but the blood pigment is discoloured. Analysis proved that this change was not due to methaemoglobin, although traces were detected in certain dilutions of the laked corpuscles. When the blood was laked before the gas was passed through the solution, the methaemoglobin spectrum was obtained. The blood changes demand further investigation.

POST-GRADUATE COURSES FOR RETURNED MEDICAL OFFICERS.

It is proposed to hold a course of post-graduate instruction for returned military medical officers and general practitioners in Melbourne during the fortnight between October 20 and November 1, 1919.

The course will consist largely of practical clinical work and demonstrations at the Melbourne, St. Vincent's and Alfred Hospitals and at the special Women's, Children's, Eye and Ear and Infectious Diseases Hospitals; it will include lectures and demonstrations at the University and visits to the Federal Serum Institute and other places of interest.

A fee of £2 2s. will be charged to medical men other than returned soldiers.

Intending members are asked to notify to the Secretary (Medical Society Hall, East Melbourne) as soon as possible their intention to join the class and also to indicate the nature of the work (if any) they desire to study.

¹ *Journal of the Royal Naval Medical Service*, July, 1919.

Abstracts from Current Medical Literature.

THERAPEUTICS.

(99) Pressor Effects of Adrenalin.

Peyton Rous and G. W. Wilson have made a study of the influence of ether anaesthesia, of hemorrhage and of plethora upon the vaso-constriction produced by the injection of minute amounts of epinephrine (*Journ. Exper. Medicine*, February, 1919). Adrenalin is used with more or less success to raise the blood-pressure in conditions of collapse. The authors have sought to ascertain the dose of adrenalin requisite to bring about a particular increase in the blood pressure under different circumstances. The experiments have been made with dogs and rabbits. The solution of epinephrine (Parke, Davis & Co.) has been introduced into the external maxillary vein. A dose of 0.5 c.c.m. of a dilution of one part in 1,000,000 saline solution raised the blood pressure in normal rabbits about 15 mm. mercury. This dose is called the minimal stimulative dose. While morphine and paraldehyde had no influence on the effects of epinephrine, ether anaesthesia abolished the action of a single stimulative dose and diminished materially the action of ten doses. Haemorrhage has much influence in lessening the change in blood pressure after the injection of epinephrine. Whenever the haemorrhage was sufficiently extensive to lower the blood pressure, at least four stimulative doses were needed to alter the blood pressure. Sometimes 10 doses were required to exhibit any pressor effect. With 100 doses the response was practically similar to that seen in normal animals. If the animals were bled, tested with epinephrine and injected with the blood that had been removed, the response to epinephrine returned in proportion to the degree of restoration of the blood pressure. When, however, the "depletion of blood had been maintained so long that the blood pressure did not return to the previous level upon the injection of blood, there was permanent impairment in the response to the introduction of epinephrine. Some investigation has been carried out on the influence of plethora produced by the transfusion of citrated whole blood or of 7% gum acacia solution. The response was lessened in proportion as the blood pressure was heightened by the transfusion. The authors had hoped that they might demonstrate the utility of intravenous injections of minute quantities of epinephrine in the detection of diminished volume of the blood in patients suspected to be suffering from the effects of haemorrhage. It is often impossible to distinguish clinically between collapse due to lessened volume of the blood and that due to shock or to an extending infection. An approximately normal blood count may be obtained in exsanguinated soldiers within a few hours after receiving a wound. Since the authors have found that so

many circumstances affect the response to epinephrine, they are dubious as to the practical utility of the injections.

(100) Histamine from the Hypophysis Cerebri.

J. J. Abel and S. Kubota (*Journ. Pharm. and Exper. Therapeutics*, June, 1919) have made a study of histamine. Histamine or beta-iminazolyl-ethylamine has an action on unstripped muscle which it stimulates in minute dose. It causes depression of the circulation and a condition of prostration resembling shock. It occurs widely distributed throughout animal tissues, organic extracts and enzymatic products. Certain bacteria are capable of forming the base by decarboxylating histidine. By the hydrolysis of pure proteins, such as casein, edestin and crystallized egg-albumin, the authors have prepared the body or some closely allied compound. The authors are, therefore, of opinion that histamine is a constituent of the diet of man and that persons consume daily a considerable amount of base. They bring forward evidence that histamine is produced during the gastric and eretic digestion of food. They suggest that histamine acts as a stimulant to the gastric and intestinal musculature and that it acts as a dilator of the capillaries during digestion. Since many of the effects of histamine are similar to those seen in shock, the authors suggest that histamine is formed from miltiated tissues and gives rise to systemic effects after absorption. The authors advance chemical and physiological proofs that the constituent of extracts of the posterior lobe of the pituitary gland which stimulates muscle and depresses the blood-pressure is histamine. Since histamine occurs to some extent in all tissues, it cannot be longer considered as a hormone or substance specific to the pituitary gland. The authors have been unable to offer any reasonable explanation for the high concentration of histamine in the posterior lobe of the organ. When histamine is taken by the mouth, the organism can tolerate considerable amounts, a cat eating as much as 225 mg. without showing any signs of the action of histamine. An intravenous injection of a tenth of the quantity would give rise to vomiting and collapse.

(101) Action of Isomeric Tropeines.

A. R. Cushny (*Journ. Pharm. and Exper. Therapeutics*, May, 1919) has made a study of the relative pharmacological activity of different optical isomers of the series of tropeines. For this purpose he has measured the degree to which the substances are capable of antagonizing pilocarpine. The experiments were performed on a dog in which a permanent fistula had been made in connexion with the right submaxillary duct. Under standard conditions the animal received an injection of the tropeine to be examined. Ten minutes later an injection was given from a stock solution of pilocarpine. The secretion was collected at intervals of five minutes for the next forty minutes. The results were set out in

a graph and the graphs of different experiments were compared together. At least 24 hours elapsed between experiments and frequently the interval was longer. From these figures the author concludes that the activity of the different tropeines that he has examined are as follows: levo-hyoscamine 600, methyl atropine 450, atropine 300, dextro-hyoscamine 15, levo-homatropine 14, inactive homatropine 10, dextro-homatropine 7, benzoyl-tropeine 1, phenylacetyl-tropeine 1, paraoxy-benzoyl-tropeine less than one half and dextrotartraryl-tropeine none. The results show a sudden change in passing from the tropeines of the simple aromatic acids to the homatropine series. This is remarkable when it is noted that homatropine only differs from phenylacetyl-tropeine in the presence of hydroxyl in the side chain. The presence of this hydroxyl renders, however, one carbon asymmetric. From his results the author concludes that the typical atropine action is dependent in the first place on the tropine nucleus. While tropine itself has no action, its derivatives, especially those containing the benzene nucleus, are active. The action is intensified by the presence of an hydroxyl radicle and asymmetric carbon atom. The highest degree of activity is only reached when tropeine is combined with an acid of the benzene series containing an hydroxyl radicle and an asymmetric carbon atom in the side chain. Further, the molecule must be levo-rotatory. The importance of the presence of an asymmetric carbon atom had not been hitherto recognized. An examination of the relative activity of the members of the adrenalin series shows the importance of an asymmetric carbon atom in a phenolic group.

(102) Gangrene After Carbolic Acid.

F. E. Robinson (*Journ. of the Royal Nav. Med. Service*, January 19, 1919) records the history of a case of gangrene of the little finger after the use of a dilute solution of carbolic acid. A sick bay attendant, aged 23, suffered from a small superficial abscess on the inner side of the terminal phalanx of the right little finger. This abscess was painted with tincture of iodine and punctured with a sterilized surgical needle. A minute quantity of pus was evacuated and a compress of carbolic acid (1 in 60) was applied, so that it extended half way down the proximal phalanx. The patient slept well and noticed neither pain nor throbbing. The next morning the finger was nearly black. A boracic fomentation was applied and renewed during the day. Towards evening the temperature rose to 37.3° C. and the patient felt unwell. The next morning the last two phalanges and the distal half of the proximal phalanx were gangrenous. A well-marked inflammatory line of demarcation had appeared half-way up the proximal phalanx. The epidermis of the distal part of the finger was of a dirty grey colour. The epidermis, together with the finger-nail, was floating on the rest of the finger, being separated from it by serous fluid. Beneath the epidermis, the finger was moist and of a

mottled black and purple colour. There was no smell. The area of gangrene coincided exactly with that of the carbolic compress. The absence of pain and the history negatived the suggestion that tight bandaging had occasioned the gangrene. Amputation at the metacarpal phalangeal joint was carried out.

UROLOGY.

(103) Sub-Mucous Implantation of Ureter in Large Intestine.

Robert C. Coffey relates the course of the experimental work undertaken by him which led to the evolution of his sub-mucous implantation of the ureter into the large intestine (*Urolog. and Cutan. Review*, August, 1919). The idea of carrying out this procedure occurred to him as a result of a series of experiments dealing with partial pancreatectomy. He found that when a duct is implanted directly into the intestinal wall, it undergoes dilatation. By insinuating the duct under the loosened mucous membrane for a short distance before allowing it to penetrate this structure, the intra-intestinal pressure kept the duct in a collapsed condition. A series of physical experiments supported this view. He carried out a series of experiments on dogs in the following manner. The ureter is secured with ligatures and cut across. The lumen is opened for a short distance with scissors. Two sutures are tied to include one half each of the split end of the ureter a short distance from the divided extremity. In the next place, an incision is made through the peritoneal and muscular coats of the intestine for about 2.5 cm. or more. The dissection is carried out until the mucous membrane protrudes through the incision. Five or six sutures are passed through the peritoneal and muscular coats on each side. The portion of the sutures bridging across the incision is held up by some flat instrument. A stab wound is made in the mucous membrane into the intestinal lumen and the traction sutures passing through the ureter are inserted through the stab wound and out through the intestinal wall 2 cm. further along. The tension sutures are drawn tight in such a manner that the split opening of the ureter is adapted to the stab wound in the mucous membrane of the intestine. The ureter is tacked to the peritoneum of the intestine at the other end of the wound, the suture avoiding the lumen of the ureter. The sutures through the intestinal coats are then tightened and tied, so that the tube lies loosely under the mucous membrane from the point of penetration of the peritoneal and muscular coats to the point of penetration of the mucous coat several centimetres distant. Nine dogs were operated on in this manner, five recovered and were in good health from 72 to 169 days after. In no case was there any evidence of an ascending infection. On the other hand, control operations in which the implantation was direct, led to ascending infection in every case. The author compares this operation with Martin's operation, in which the ureter is im-

planted for a short distance in the muscular coat and also with Fowler's operation, in which a flap valve of mucous membrane is provided after the ureter is carried obliquely through all the coats of the intestine. Coffey's operation, with slight modifications, has been tested by Charles H. Mayo. Of 37 patients with exstrophy of the bladder, 15 were not operated on and, of the remaining 22, six were subjected to the plastic method, three to Moynihan's method and 13 by the transplantation method. The plastic operation did not afford control of the urine. Two of the three patients in whom Moynihan's operation was performed, died of uræmia. Of the 13 persons on whom Coffey's operation was carried out, one died of the operation, one died a few weeks later of a pneumonia, one died three years later of pulmonary tuberculosis and one died three years later of enteric fever. Coffey has carried out the operation five times. The first patient was suffering from advanced cancer of the bladder. The implantation of the ureter into the rectum was perfectly successful and gave the patient comfort for the remaining months of his life. The second patient was a child of two, in whom the operation led to eminently satisfactory results. The third patient was a uræmic man with advanced cancer of the bladder. The implantation was a success. The fourth patient was a girl of eight with exstrophy of the bladder. The result has been excellent. The fifth patient had a contracted and ulcerated bladder for many years. After the operation, the patient became distinctly uræmic. Only one ureter was transplanted, because the other was greatly dilated. The patient was left with the ureter opening through the left rectus muscle high up.

(104) Prostatic Fistula.

S. Peterkin (*Urolog. and Cutan. Review*, July, 1919) records the case of a man, aged 42 years, who had had an attack of gonorrhœa 22 years before. At the end of 21 years he consulted a practitioner on account of urinary trouble. There was pyuria and retention. An instrument was passed with difficulty and considerable bleeding followed. Three months later another practitioner examined the bladder by a cystoscope and treated the pyuria with internal treatment and bladder irrigation. Later a vaccine was used. Still later, suprapubic cystotomy was performed and 20 stones were removed. The suprapubic wound did not heal. A second cystotomy was performed and it is stated that a portion of the prostate was removed. A retention catheter was employed and the wound healed almost completely, but no urine was voided naturally after the catheter was removed. Various attempts were made to close the suprapubic opening. A careful examination by the author revealed a false passage through the prostate, isolating a wedged-shaped portion of prostatic tissue which acted as an efficient valve, preventing the flow of urine through the urethra. The diagnosis was made by combining a cystoscopic examination with a radiographic

illumination. The fistula was dealt with by opening it up and inserting a small rectal tube through the freshly pared tissue into the urethra.

(105) Suprapubic Prostatectomy.

G. Kolischer discusses some of the practical points in the performance of suprapubic prostatectomy (*Urolog. and Cutan. Review*, August, 1919). In the first place, he pleads for a sufficiently large incision, not only through the abdominal wall, but also through the bladder, in order that the operator may see what he is doing. He criticizes those who endeavour to escape the risk of sepsis resulting from the distension of the bladder by fluid, by filling it with air. It is not possible to produce an entirely dry viscous either by filling the bladder with air or by emptying it by means of a catheter. He finds that the employment of an antiseptic fluid is satisfactory, since it materially interferes with the activity of bacteria flooded out of the open bladder, even if it does not entirely stop it. He objects strongly to the surgeon who prefers to open the bladder with scissors and not with a knife, or who uses retractors with blades longer than the surgeon's fingers for the purpose of gaining access to the trigone. He points out that some surgeons advocate the use of a long nail of the index finger for enucleating the hypertrophied prostate. This practice is adopted by surgeons who are punctilious in regard to the asepsis of the operative procedure. Very many surgeons fail to take adequate precautions to guard against the accidents of haemorrhage and some even advocate the insertion of a large drainage tube for siphonage of the bladder. The large tube has but one result, viz., the retardation of healing. Haemorrhage can be controlled or avoided by plugging the cavity with a transplant of fat. The transplant can be kept in position by a few anchor sutures or by a little packing on it. The removal of the gauze does not result in the opening up of blood vessels, as the fat tampon adheres to the raw surface and not to the gauze. He holds that the success of suprapubic prostatectomy depends on the proper preparation of patients and on the development of hospital and operative technique.

(106) Exostosis Simulating Bladder Tumour.

Frank A. Roberts gives an account of a case of exostosis arising from a hip joint disintegrated by tuberculous disease (*Urolog. and Cutan. Review*, July, 1919). The patient was suffering from the symptoms of a severe cystitis. The tubercular disease had destroyed the hip joint and had led to ankylosis. The thigh was partly flexed over the bladder region. Cystoscopy was difficult, owing to the extreme irritability of the bladder. After the organ had been irrigated, the examination was carried out and a mass was recognized on the right lateral wall of the bladder. The author holds that, had he failed to have a skilogram taken, this mass would have been regarded as a vesical tumour or a vesical calculus.

VENEREAL DISEASE IN AUSTRALIA.

A service publication, entitled "Venereal Disease in Australia,"¹ by Dr. J. H. L. Cumpston, Director of Quarantine, may be regarded as an official record of the steps taken in the Commonwealth up to the present time to combat these scourges.

Historical.

In the opening chapter Dr. Cumpston refers to the official expression of opinion voiced at the Australasian Medical Congress in Melbourne in 1908. In the following year the *Prisoners' Detention Act* came into force in New South Wales. In 1910 an experiment was carried out in Victoria, whereby syphilis was made a compulsorily notifiable disease for a definite period, namely, twelve months. Much valuable information was collected. In 1911 the Australasian Medical Congress in Sydney passed a number of resolutions, and in the same year the substance of these resolutions was embodied in amendments to the existing *Health Act* of Queensland. A report of venereal diseases was submitted to the Australasian Medical Congress at Auckland in 1914 and a number of resolutions were passed. The next important event in this connexion was the publication in February, 1916, of the Final Report of the British Royal Commission on Venereal Diseases.

These events and the recognition of the fact that a large number of soldiers in training for service abroad had contracted venereal infections excited the earnest attention of the military authorities and the public. In September, 1915, the Prime Minister of the Commonwealth invited the Premiers of the several States to consider the advisability of passing legislation providing for the compulsory notification of venereal diseases. The first State to take action was Western Australia. The *Public Health Amending Bill* was presented to Parliament in September and became law on December 8, 1915. Late in May of 1916 the Committee appointed by the Department of Trade and Customs to inquire into the causes of death and invalidity in the Commonwealth issued a report on venereal diseases. As a result of this report and of the increasing amount of venereal disease among the troops in training, the Commonwealth Government determined to offer financial aid to the States to carry out a uniform method of attack. The following were the conditions of the Government's offer:—

- (i.) That the subsidy shall be on a £1 for £1 basis up to a maximum amount specified for each State.
- (ii.) That notification of cases by medical practitioners be made compulsory.
- (iii.) That all practicable measures be taken for tracing the source of infection.
- (iv.) That the treatment shall be on recognized modern lines and adequate precautions taken against the spread of infection.
- (v.) That arrangements be made as soon as possible for the performance of examinations, for microscopical examination for diagnosis and for blood examinations and that arrangements be made, where practicable, for such examinations to be made at the time of the examination of specimens from all extra metropolitan districts.
- (vi.) That clinics be established, where practicable, for the treatment of venereal disease, and that patients be admitted on first appearance, on the same basis as all other patients.
- (vii.) That patients admitted to such clinics be entitled to free treatment; any patient desirous of making a contribution to the hospital funds to be permitted to do so.
- (viii.) That inspection be made by a Commonwealth officer, deputed by the Commonwealth Government, for the purpose of seeing that the above conditions are carried out.
- (ix.) That returns be furnished on prescribed lines.
- (x.) That special facilities be afforded to any medical officer nominated from time to time by the Commonwealth Government.
- (xi.) That the hospital concerned will agree to undertake to arrange for a series of lectures or practical

demonstrations each year to undergraduates and graduates on some subject or subjects connected with venereal diseases, for attendance at which no fees will be charged.

(xii.) That the claim for payment of the subsidy be accompanied by a statement, certified as correct by the State Auditor-General, setting out full details of services paid for.

In addition, an offer was made the Universities of Sydney and Melbourne to provide a sum of £450 for twelve months, for research work in connexion with the disease and an allowance of £100 for equipment for the same period. Legislation in the direction indicated was passed in Victoria in December, 1916, and in Tasmania and Queensland in February, 1917. The regulations under these Acts were introduced during the year 1917.

Dr. Cumpston briefly refers to the limited authority vested in the Commonwealth Government in regard to venereal diseases. Under the *Immigration Restriction Act*, an immigrant suffering from venereal disease is regarded as a prohibited immigrant. These persons are not permitted to land in Australia, except for medical treatment under the control of the Quarantine Service. Accommodation for persons suffering from venereal disease has been provided at the Quarantine Station at Fremantle, at Port Adelaide, at Sydney and Brisbane. Between July, 1915, and April, 1918, 500 members of ships' crews were removed from vessels on this account.

State Legislation.

In view of the fact that the Acts dealing with venereal diseases have been very fully explained in these columns at the time of their introduction, it is unnecessary to summarize the paragraphs of the report setting out the scope and significance of the four Acts. The omission of all mention of the New South Wales Act appears to be due to the fact that the regulations have not yet been issued and the Act is not yet in force.

In dealing with the question of notification, Dr. Cumpston points out that the inclusion in the definition section of the Western Australian Act of congenital syphilis renders the limitation of notification to cases "in an infectious stage" a defect. He further points out that in some States no check has been carried out to ascertain whether all registered medical practitioners are notifying the cases occurring in their practice. He expresses the opinion, however, that the majority of medical practitioners are discharging their obligation in this respect. He publishes the following table:

	WESTERN AUSTRALIA.							
	June 9, 1916,	Jan. 1, to Dec. 31, 1916.	July 1, 1917,	1917, to June 30, 1917.	1918, to Dec. 31, 1917.	Totals.	M.	F.
<i>Syphilis—</i>								
Primary	63	46	25	30	164	136	28	
Secondary	89	62	20	32	203	118	85	
Tertiary	63	29	26	25	143	101	42	
Congenital.	7	3	18	3	31	19	12	
Total						541		
Gonorrhœa		477	429	315	378	1,599	1,339	260
Chancroid		39	24	10	14	87	78	9
Granuloma		66	26	1	3	96	28	68

	VICTORIA.							
	July 1, 1917, to June 30, 1918.						M.	F.
<i>Syphilis</i>								
Congenital Syphilis						248	248	116
Gonorrhœa						4,787	4,787	4,227
Soft Chancre						80	80	75

	TASMANIA.							
	Sept. 1, 1917, to Dec. 31, 1917.						M.	F.
<i>Syphilis</i>								
Gonorrhœa						39	38	58
Chancroid						102	260	362
						7	7	14

¹ Service Publication No. 17: Venereal Disease in Australia, by J. H. L. Cumpston, M.D., D.P.H., Director of Quarantine; 1919. Royal 8vo., pp. 44. Albert J. Mullett, Government Printer, Melbourne.

QUEENSLAND.

	June 30, 1918, to Sept. 28, 1918.	Totals.
Syphilis—		
Primary	55	55
Secondary	44	44
Gonorrhœa	777	777
Soft Chancre	5	5
Ulcerative Granuloma	—	—
Venereal Warts	1	1
Notifications are of civilian cases only (except in Queensland).		

On the basis of this table and of the returns made in connexion with military patients, he finds that at the end of 1916 the frequency of syphilis in Western Australia was 113 per 100,000 of population and, in Victoria, 164 per 100,000 of population. The frequency of gonorrhœa in the two States was 350 and 381 per 100,000 of population respectively. He admits that it is too early to determine whether these figures indicate the real prevalence of the diseases.

In referring to the prohibition of treatment of venereal infections by persons other than registered medical practitioners, he points out that in certain instances it has been necessary to institute proceedings against chemists. While he recognizes that this form of unqualified practice still exists to a small extent, he claims that the majority of pharmacists are obeying the law.

In his opinion, the weakest link in the chain of control is that providing for compulsion on the sufferer to consult a medical practitioner. Many persons may not be aware of their statutory liabilities. It is well known that gonorrhœa is frequently overlooked in the female and that in many cases infected women are unaware of the fact. At times the disease has assumed so obscure a form that the recognition of its nature is extremely difficult. Dr. Cumpston suggests that firmness on the part of medical practitioners and pharmacists and a continued education of the public will in time overcome these difficulties.

Failure to Continue Treatment.

Each of the four acts contains provision to deal with patients who do not continue under treatment until the disease is cured. It will be within the recollection of every medical practitioner in the Commonwealth that under the existing acts the treating practitioner is required to notify the authority when a patient fails to reappear for treatment after a specified time. The notification in this instance is by name and the only exception which would relieve the practitioner of the obligation, is when a colleague intimates to him that the patient has placed himself under his care. Discontinuation of treatment may result from carelessness or from a conviction on the part of the patient that the disappearance of symptoms indicates the cure of the disease. Other persons neglect to obtain treatment, although they recognize the danger of their infectivity. There is the nervous person, whose shyness prevents him from disclosing his condition; the clandestine prostitute, who avoids being recognized by the authorities, and the professional prostitute, who is afraid to risk the means of her livelihood. Dr. Cumpston differentiates very sharply the person who has been under treatment and avoids a continuation from the person who has not subjected himself to treatment at all. The number of persons who have been reported for failure to continue under treatment since the introduction of the several acts are: in Victoria, 1,500; in Western Australia, 285; in Queensland, 21; and in Tasmania, 12. In Victoria, 887 of these persons have been traced and dealt with and the same has been done in the case of each person reported in Tasmania and in the case of ten of the persons reported in Queensland. A frequent reason for the discontinuation given by the patients was that they were not able to pay for private treatment and that they could not attend at the hospital during the day time. This is said to be particularly the case with women. It is stated that the failure to trace the persons was due to the fact that the patient had left the State, that he had given a fictitious address, that he had assumed another person's name and address, or that, having given a correct address, he had left it during the period of grace. Dr. Cumpston holds the opinion that

the figures relating to Victoria indicate that in all probability the majority of the failures are notified, although he admits that they also indicate a very serious amount of disease which is left partially treated.

Persons Who Escape Notification.

In each act there is provision for the authorities to deal with infected persons whose condition is revealed as a result of information obtained from sources other than medical practitioners. In Western Australia there were 20 cases of this kind, in Queensland 18, in Tasmania 11 and in Victoria six. The Commissioner of Public Health of Western Australia has found that it is quite easy to obtain information concerning persons infected with venereal disease, but that it is very difficult to persuade the informants to sign a statement. Parliament has given him power to act in those cases in which he has reason to believe that a person is suffering from venereal disease. Investigation in the twenty cases revealed that the person indicated was able to produce a certificate of cure (one case) or a certificate of freedom from infection (four cases) or that he was under treatment (three cases). In two instances the person was untraceable, in four it was discovered that the person had left the State and in six the information was insufficient, incorrect or stale. From these figures it will be seen that information based on signed statements is less likely to bring to light infections that have not been notified than would the well-directed observations of a competent administrator of the Act. It is pointed out that there is a defect in the acts, in that the person ordered to place himself under treatment is not required to produce proof that he has done so.

The authorities have power under the Act to detain persons for the purpose of having an examination carried out. In Queensland 54 persons were detained under these provisions, in Tasmania two and in Victoria one. The reason why this compulsory examination is not carried in the three States (Western Australia, Victoria and Tasmania), is because there is no available accommodation. In certain instances the Defence Department supplied the information and demanded the detention in the interests of the public. In one case a woman, having been notified of her condition and of the consequent necessity for treatment, went to gaol at her own request, there being no other place for her to go. Apparently, in Western Australia the necessity for detention has not yet arisen. It is stated that there is ample accommodation. In Queensland one ward is available for prostitutes, but there is little accommodation for other persons. In connexion with this chapter of the subject, Dr. Cumpston calls attention to a very serious defect when examination is carried out in the absence of proper accommodation for detention. In certain cases women have been required to attend for examination on several occasions at short intervals. On each occasion no organisms were recovered from the discharge. The explanation given is that by the local application of disinfectants immediately before the examination, the infective nature of the condition was masked.

Detention of Prisoners.

Under the provisions of the Victorian and Tasmanian Acts, an infected prisoner in any gaol must be detained beyond the completion of his sentence, until the infection is cured. The Queensland Act requires the medical officer of the gaols to certify that a prisoner is suffering from venereal disease and is likely to convey the disease to others. Some of the medical officers have evinced a reluctance to sign these certificates, because it is often hazardous to state that a person is liable to convey the disease to other persons. Moreover, there is no provision in the Queensland Act for the examination of every prisoner, in order to ascertain whether or not he is suffering from venereal disease. Concealment of infection is consequently not only possible but easy, especially with women serving short terms. It was contemplated by the legislature in Victoria and Tasmania that prisoners should be transferred for detention and treatment to special hospitals or special wards. These hospitals or wards have not yet been provided. In Victoria 116 prisoners have been detained in gaol and in Tasmania only two. During the last five years, between 20 and 30 prisoners have been detained in Queensland.

Knowingly Infecting Other Persons.

No prosecutions have yet been instituted in any State of a person who has knowingly infected another person.

Forbidden Advertisements.

In Western Australia and in Queensland a person may be prosecuted for having offered for sale by advertisement or otherwise any medicine, instrument or appliance for the alleviation or cure of a venereal disease, etc. Hitherto, no prosecutions have been found to be necessary. In a few instances publishers of newspapers have been notified that certain advertisements must be withdrawn.

Treatment of Infection.

After reviewing the general provisions for treatment contained in the several acts and the recommendations concerning treatment which have been put forward by the Local Government Board of England, Dr. Cumpston gives a short account of the hospital and other accommodation in the four States.

In Queensland there is a limited amount of indoor accommodation and an out-patient clinic at the Brisbane General Hospital. A special ward is set aside for prostitutes and some beds are available for other infected females. The attendance at the clinic is small and the treatment unsatisfactory. No special provisions exist in any hospitals outside the metropolis. The laboratory diagnosis work is carried out by the Department of Public Health in Brisbane. The transmission of specimens from country hospitals may occupy periods from three to thirteen days. It is suggested that arrangements might be made to have part of this work carried out at the Australian Institute of Tropical Medicine.

In Tasmania arrangements have been made at the Hobart Hospital for the treatment of all out-patients who present themselves. There is no special provision for modern methods of local treatment, such as there should be. Male in-patients are admitted to the wards and a ward for female patients is being built. No in-patients suffering from venereal disease are admitted to the Launceston General Hospital. In regard to the laboratory diagnosis, it is stated that gonorrhœa specimens are examined at the Department of Public Health, but that blood specimens for the diagnosis of syphilis are sent to the Melbourne University.

In Western Australia the following provision has been made. In the Perth Public Hospital there are evening clinics for men and for women twice a week. There is a specially appointed staff and modern equipment. Accommodation is provided for patients needing indoor treatment. Similar arrangements exist at the Fremantle Public Hospital. The evening clinics for men are held three times a week. At the Kalgoorlie Hospital arrangements have been made for the treatment of males up to eight o'clock in the evening on any day and for females at times suitable to the patients. Special facilities are provided for indoor treatment. At the Children's Hospital in Perth the necessary treatment is given to all children under 18 years of age. Provision has been made at all other public hospitals throughout the State for the treatment of persons suffering from venereal disease. Patients are required to apply to the medical officer in charge. In towns where there is no hospital, but where there is a district medical officer, this official is prepared to undertake the gratuitous treatment of persons suffering from venereal disease.

In Victoria a clinic has been established at the Alfred Hospital, but is not yet in full working order. Negotiations are proceeding for the establishment of a clinic at the Melbourne Hospital. A venereal clinic was opened on June 17, 1918, in premises adjacent to the Public Health Department. This clinic is for male patients only. The building of premises for a clinic for female patients is about to be undertaken. Between June 22, 1918, and October 16, 1918, 1,000 men were under treatment at the clinic. Of these, 909 were suffering from one venereal disease only, 65 were suffering from two or more venereal diseases and 26 were suffering from non-venereal diseases. There were 237 syphilitic infections, 786 gonorrhœal and 18 chancroidal infections.

Alcohol and Venereal Disease.

Some evidence is offered concerning the effect of excessive indulgence in alcoholic beverages on the incidence of venereal

disease. Inquiries were instituted at Langwarrin and it was ascertained that of 521 individuals interrogated, 129 were total abstainers. Two hundred and seventy described themselves as "light drinkers," 122 described themselves as "heavy drinkers" and 32 admitted that they were under the influence of alcohol at the time of infection. At the Victorian departmental clinic 995 individuals were questioned. Of these men 260 stated that they had partaken of alcoholic beverages within a few hours of infection, while the remainder maintained that they had not drunk any alcoholic beverage during that evening. Major Conder, the Medical Officer in charge at Langwarrin, pointed out that the inquiry was conducted by using fellow patients and the men were assured that the information was required for statistical purposes only. He does not doubt the correctness of the records, unless some of the patients wished to blame the drink for their condition. It is suggested that these figures indicate that sexual impulse is the determining factor in impelling the men to risk a venereal infection and that in the majority of cases alcoholic stimulation is not required. On the other hand, experience has shown that intoxication was responsible for neglect in the use of prophylactic measures after exposure to infection.

Prophylactic Measures.

Some figures have been collected concerning the protective value of the standard prophylactic measures at Langwarrin. It is, however, admitted that the records do not admit of any deductions being drawn. The following information is held to be more significant. At the prophylactic tent at the Liverpool Training Camp, 12,203 men received prophylactic treatment between June 4, 1916, and September 26, 1918. During the same period 631 men were sent to the venereal disease isolation camp. Of these men only 60 stated that they had made use of the prophylactic tent. It is claimed that every soldier in the Australian military forces in New South Wales who contracts a venereal infection, is sent to the isolation camp. The assumption, therefore, is justified that only 0.4% of the men treated at the prophylactic tent contracted a venereal infection.

Source of Infection.

Dr. Cumpston recognizes that the problem of attacking the source of infection is much more difficult when it resides in women who do not depend on prostitution for their living, than when it exists in regular prostitutes. It is therefore of importance to endeavour to ascertain the source of infection in large numbers of instances. At Langwarrin it was discovered that of 1,052 men questioned, 310 had paid the women concerned and 742 had not paid. At the Victorian departmental clinic 995 men were questioned. Of these 446 had paid and 549 had not paid. It is assumed from these figures, which corroborate the experience of many experts, that the source of the infection in at least one half of infected males is the clandestine prostitute and further that the presence of military service increases the frequency of clandestine prostitution. He discusses the factors which are at work in impelling women and girls to indulge in sexual intercourse when it is not the means of their support. He states, somewhat vaguely, that these problems should be studied and the reasons why so much clandestine sexual intercourse occurs should be sought and rectified.

The Marital Condition of the Patients.

On analysis it was discovered that of 8,003 men infected with venereal disease in the military camps and at venereal clinics, 6,613 or 82.6% were single, 1,335 or 16.6% were married and 55 were widowed.

The Distribution of Venereal Diseases.

Some figures are given concerning the number of infections notified in Victoria, Western Australia and Queensland in the urban and rural districts. The Victorian figures covering a period of twelve months reveal that 4.6% of the notified infections were in persons outside the metropolis of Melbourne and the cities of Ballarat, Bendigo and Geelong, while the remaining 95.4% were "rural" infections. Gonorrhœa was relatively more common in the "rest of the State," while syphilis in the cities represented 96.9% of the total number of syphilitic infections. In Western Australia 2,994

out of 3,885 notifications were received from medical practitioners within the metropolitan area. In Queensland there were 497 notifications in the metropolis between July 1, 1918, and November 9, 1918, and 382 outside that area.

The following information was obtained at Langwarrin. Of 3,063 infected soldiers, 1,912 had previously lived in the city and 1,151 had lived in the country. It was ascertained that 2,746 of these men had not contracted a venereal infection before joining the army; 237 had had one previous attack, 15 had had two previous attacks, two had had three previous attacks and 63 had had more than three previous attacks. Dr. Cumpston deduces from the available evidence that venereal diseases have hitherto been almost entirely confined to metropolitan areas; that the enlistment of large numbers of men from the country districts has resulted in their introduction to irregular sexual intercourse and their infection with venereal disease; and that there is a serious danger of widespread distribution of venereal infection into the country districts following upon the demobilization of the military forces. He therefore advises that adequate steps should be taken in advance.

Information supplied by the Department of Defence reveals that among 87,473 recruits examined for mobilization in October, 1916, in Queensland, New South Wales and South Australia, 451 were found to be infected with syphilis and 1,080 with gonorrhoea. The percentage incidence was 1.5% among the Queensland recruits, 2.2% among the New South Wales recruits and 0.6% among the South Australian recruits. It has been estimated that 15% of the recruits examined in Melbourne, coming from the metropolitan area, were infected. In Western Australia it was found that 0.5% of the recruits examined for service overseas were infected. It is pointed out that these figures deal with men presenting themselves for service abroad. "Men suffering from venereal disease would not be likely to present themselves for such service." Of the men called up for compulsory service in 1916, approximately 1% of the young adult unmarried population was infected with venereal disease. The incidence of these diseases among the men after enlistment in actual numbers is given as 13,038 in the Commonwealth and 40,950 abroad. The latter figure does not include those who contracted venereal infections in Egypt after March, 1916. The estimated total therefore reached about 55,000.

The following table indicates the distribution of infections in the several venereal diseases camps in Australia:—

State.	Gonorrhœa.	Syphilis.	Chancroid.	Mixed.	Discharged	
					as not	Vener.
Queensland ..	1,583 ..	205 ..	41 ..	49 ..	49	
N.S.W. . .	2,937 ..	591 ..	26 ..	90 ..	152	
Victoria ..	4,695 ..	665 ..	418 ..	298 ..	16	
Sth. Australia ..	767 ..	81 ..	17 ..	17 ..	51	
Western Aust. ..	343 ..	161 ..	— ..	— ..	—	

The figures for Tasmania are not available.

The military instructions recently issued, dealing with the retention of infected soldiers for the purpose of treatment are quoted *in extenso*.

General Considerations.

In a summary extending over about four pages Dr. Cumpston reviews the facts as set out in the body of his report and discusses the campaign directed toward the eradication of venereal diseases under three headings: coercive legislation; adequate opportunities for early treatment of all infected persons on the most modern lines; education of the public concerning the gravity of venereal diseases and the necessity for their control. He points out that the objective of the new legislation is the continuous treatment of all infected persons until cure. The difficulties to be overcome consist in the discovery of the existence of every case. As the knowledge of the safeguards provided by the statutes and of the importance of these diseases becomes more general, and as adequate provision is made for the proper treatment of all cases, it will be possible to induce or compel all infected persons to submit to treatment. At the present time, it is not possible to attempt the rigid enforcement of all the provisions included in the statutes with any hope of success. On the other hand, it is almost universally held that coercive power is necessary in an organized cam-

paign. It is claimed that the legislation has already been to a large extent successful. Dr. Cumpston suggests certain modifications. These include a more specific form of notification of gonorrhœal ophthalmia and congenital syphilis; more rigorous action in the punishment of quacks and chemists who, in defiance of the law, persist in treating these infections; more specific provisions compelling the patient to divulge his name and address to the medical practitioner under whose treatment he has placed himself; better protection of the medical practitioner in regard to communications made by him in compliance with the law; information concerning the occupation of patients, in order that when a person handling food is infected, adequate steps could be taken; the immediate establishment of adequate equipment on modern lines in all hospitals and the institution of a sufficient number of venereal diseases clinics; better organization to insure that all medical practitioners are given facilities to become acquainted with modern methods of diagnosis and treatment; and, lastly, improved machinery to insure that the treatment once commenced is continued.

British Medical Association News.

SCIENTIFIC.

A meeting of the New South Wales Branch was held at the B.M.A. Building, 30-34 Elizabeth Street, Sydney, on August 29, 1919, Dr. F. P. Sandes, the President, in the chair.

Dr. W. Ritchie read a paper on the treatment of *retroflexio uteri* (see page 233).

Dr. J. Foreman expressed his indebtedness to Dr. Ritchie for having brought up the subject for discussion. Much good could be done for displacements, but there was as much difference of opinion concerning this matter as there was concerning the right way to heaven. Dr. Ritchie had spoken scathingly of pessaries. He (the speaker) claimed that pessaries had at least one friend—himself. Moreover, he had been struck by the fact that at times he had seen a large collection of pessaries at the instrument makers and on a subsequent visit, the box was nearly empty. He imagined that someone must have brought them. He was consoled that Dr. Ritchie's disbelief in pessaries was not universally shared. He maintained that the pessary was a very good friend, but it was essential to recognize its uses and limitations. A pessary could not act as a splint. It was able to restore the normal tension of the vagina. He stated that good results could not often be obtained with pessaries in retroflexion, although excellent results were obtainable in retroversion. The complaints of the patients with displacements were largely due to complications. This was not always the case. He cited the instance of a patient who had been brought to him on a stretcher. She was quite incapable of walking and was a complete invalid. He found that the uterus was retroverted, but that there was no other abnormality present. The uterus was restored to its normal position, a pessary was inserted and the patient walked out of the room free from all disability. He had found pessaries of great value for retroverted gravid uteri. The women were enabled to go to full time without distress and without danger.

Turning to the question of operation, Dr. Foreman agreed with Dr. Ritchie concerning the difference of opinion as to the best procedure. The object of the operation was to get rid of the trouble with safety and with certainty. He had tried many, although he could not claim that he had performed the hundred different operations spoken of by Dr. Ritchie. Nevertheless he had had a considerable experience and had always returned to either the external or the internal shortening of the round ligament. He had carried out Gilliam's operation a half a dozen times. He was not impressed with it and certainly would not prefer it to other procedures. He failed to understand how a hernia could form if the operation were properly carried out.

Dr. Foreman referred to a case in which the uterus had been suspended on both sides by the Fallopian tubes attached to the abdominal wall. He claimed that he had been one of the first to perform the Alexander-Adams operation in New South Wales. In the

early days, about the year 1886, they had not had much experience and had been forced to overcome their difficulties in a laborious manner. He remembered that at times it was the work of three quarters of an hour before they secured the round ligament. He disagreed with the practice of operating by the clock, but, as the gynaecologist gained in dexterity and manipulative skill, he was able to work at a rapid pace.

Dr. Foreman next dealt with the question of the best means of keeping the uterus in a proper position. He had been glad that Dr. Ritchie had spoken so strongly against the application of ventro-suspension and ventro-fixation in the child-bearing period. Ventro-fixation had been introduced many years before for the rectification of displacements, but experience had taught that the firm adhesion of the anterior wall of the uterus to the abdominal wall led almost invariably to abortion. Suspension was substituted for fixation, in the hope that the results would be less disastrous. The formation of adhesions between the peritoneal surfaces led to the development of ligamentous bands, which frequently stretched and even attained a length of 15 cm. or more. In certain cases extremely little was required to keep the uterus in place and, in these cases, ventro-suspension, no doubt, sufficed.

Dr. Foreman thought that the round ligament was the proper structure to attack for the purpose of keeping a misplaced uterus in place. He used this ligament through the external ring, if possible. Some gynaecologists had acquired extraordinary skill in fishing out the ligament with the small hook used in the Alexander-Adams operation. During the past eight to fifteen years he had opened the abdomen more and more frequently in these cases. The patient often complained of pain after an Alexander-Adams operation had been successfully performed. The pain was found to be due to some complication which was uninfluenced by the reduction of the mal-position. These complications were often unsuspected before the abdomen was opened. He referred to a case in which there were no localizing symptoms suggestive of inflammatory trouble. When the abdomen was opened, a collection of pus was discovered in one of the tubes. In another case he had found pus in the appendix. At times adhesions to the posterior wall resulted in a gradual return of the backward displacement after anteflexion had been affected by Alexander-Adams operation. In a discussion which had recently taken place in Dublin, one eminent authority had condemned the Alexander-Adams operation, because it did not enable the surgeon to look into the abdomen. He was surprised at this view, for he, Dr. Foreman, did the Alexander operation and opened the abdomen as well. The only risk was that of sepsis and this was a very small one.

He disagreed with Dr. Ritchie concerning the thick end of the round ligament. When the Alexander-Adams operation was properly done, the round ligament was pulled through until the thick end appeared at the peritoneal reflexion. He described briefly the technique which he employed and stated that he always inserted a pessary to insure the safety of the patient. In conclusion, he urged obstetricians to use pessaries ten or twelve days after child-birth in all cases of retroflexion.

Dr. R. Worrall said that the aetiology could not be divorced from the question of treatment. For the purposes of the debate he divided retro-displacements into congenital and acquired. He was under the impression that the former were largely ignored, which was a mistake, because these were compensatory to skeletal defects and needed no treatment. His investigations, so far as they had gone, corroborated a paper by Sturmdoff (*American Journ. of Obstetrics and Gynecology*, 1916), in which he claimed that by measuring the sacro-vertebral angle it could be ascertain in certain cases without a bimanual examination that a retro-displacement existed. A stationer's rule was laid along the spine from the dorsal convexity to the sacrum; the measurement in millimetres from this to the deepest part of the lumbar concavity constituted "the lumbar index" and should measure over 30 mm. If it were below 25 mm., it was certain that a compensatory retro-displacement existed. In other words, the whole pelvis was somewhat retroverted instead of being normally anteverted; the sacrum formed

the posterior wall of the pelvis instead of the roof and the pull of the utero-sacral ligaments from the cervix at the level of the inner os to the sacrum was backwards instead of upwards, thus enabling intra-abdominal pressure during straining, etc., to strike on the anterior surface of the uterus, forcing the organ backwards. The normal nude woman when viewed side on presented a "cock-sparrow" appearance; this was due to the upward tilt of the coccyx and lower sacrum and the forward and downward tilt of the sacral promontory. In the skeletal defect to which he referred, this appearance was absent; the hollow in the lumbar region was evidently unduly shallow and the abovementioned measurement would prove it to be so. He urged that skeletal defects should be excluded before submitting retro-displacements to operative or other treatment.

A study of an artist's model on page 34 of Crossen's "Gynaecology," a copy of which he presented to the meeting, would make the argument clear.

With regard to the general question of treatment, he strongly dissented from Dr. Ritchie's view that "ruptured perineum" might be ignored. After all, the pelvic floor was the chief factor in maintaining the pelvic viscera in position. To ignore lesions of the cervix and pelvic floor and to limit operative measures to some form of ligament shortening or uterus suspending, as was too commonly done, was to court disappointment and discredit.

Assuming that no such lesions existed or had been repaired, what further treatment should be adopted? Pessaries should be discarded. Mathews Duncan said: "They were harbingers of filth"; the modern bacteriologist taught that by causing stasis of vaginal secretion pessaries increased the number and altered the character of the flora of the vagina. In other words, they promoted sepsis and thus tended to bring about a worse condition than that they were designed to relieve. Another disadvantage was the bad mental effect arising from the use of such an instrument. The woman never got her ailment behind her altogether; she had constantly to visit her doctor and introspection was thereby fostered. There were only two circumstances under which pessaries should be used, i.e., retroversion of a uterus gravid about 4 weeks, when a pessary might be inserted for 3 or 4 weeks after restoring the organ to normal position; after the eighth week it was not probable that retroversion would recur; and, secondly, on the twenty-first day of the puerperium of a woman known to have had a retro-displacement prior to her pregnancy. In such a case the insertion of a pessary at the end of the third week and its removal at the end of the sixth week, might favourably influence the involution of the uterus and its supports and thus lead to a cure.

In operative treatment Alexander's operation was not practised by him as frequently as formerly, chiefly because he so often found it was desirable to explore the abdomen on account of enlarged appendages, enlarged uterus, adhesions or appendix trouble and it was not so certain in ultimate results as other methods. The ligaments were often thin from over-stretching or feeble development, and the pull was more lateral than direct. Owing to the insertion of the ligaments into the anterior surface of the uterus, when strong traction was applied, there was a tendency to throw backwards the fundus and thus allow intra-abdominal pressure to strike on the anterior surface of the uterus and force the organ backwards. To lessen this risk he was in the habit of not pulling out the ligaments quite so far as they would come.

Operative procedures should comply with certain requirements. The operation should be easy and occupy little time. It should be fairly certain in its ultimate result. It should bring about no untoward effect, such as dystocia. Above all, it should be safe.

It should be remembered that an operation for retro-displacement was one of expediency only and that under such circumstances to subject a woman to an operation of a dangerous nature, was quite unjustifiable. A death following such an operation would be an unmitigated tragedy.

Dystocia might follow any intra-peritoneal operation if sepsis should occur. Not long ago, at one of their meetings, a case of Cesarean section for dystocia following Gilliam's operation was reported.

The operation which, in his opinion, complied most nearly with the requirements mentioned, was ventro-suspension combined with bringing the mid-portion of the round ligaments over the insertion of the tubes and suturing them behind each cornu with chromic gut (Murphy). In the ventro-suspension only plain gut was used to join an area the size of a threepenny piece exactly at the centre of the fundus uteri to the parietal peritoneum. He had had opportunities of observing that this formed a false ligament, the size of a lead pencil and about 2.5 cm. long. He had never seen or heard of either intestinal obstruction or dystocia follow this operation, although whenever discussion had turned on this subject, he had invited information.

If pregnancy supervened, as it frequently did, the shortened round ligaments would evolute during the pregnancy and involute subsequently and thus continue to act, but the then false ligament would have been destroyed or rendered useless. If, however, all went normally during the puerperium it would no longer be required and he had seen numerous cases where the uterus still maintained its normal position after one or more labours. He had also seen a few failures, but these were very rare since he had supplemented the ventro-suspension with the suturing of the round ligaments behind each uterine cornu.

It would, no doubt, be argued that by this method of round ligament shortening the pull was on the weakest part of the ligament, but it was to be remembered that in this operation the round ligament was asked to do nothing beyond exposing the posterior surface of the uterus to intra-abdominal pressure and for this purpose the strength was quite sufficient. No operation was perfect, but by the procedures he had described a symptomatic and anatomical cure could be obtained in the vast majority of cases.

Mr. Fourness Barrington thought that the essential point was to determine whether the displacement was simple or complicated. This could only be definitely settled by pelvic examination under the anaesthetic immediately before operation. If the uterus was freely movable, came up readily into good position and remained there and if there was no history of pelvic infection, shortening of the round ligaments in the inguinal canals, a modification of the Alexander-Adams operation was the best operation. It completely cured the disability, did not interfere with the course of pregnancy or labour and the uterus remained in perfect anatomical position after repeated pregnancies. No other operation would fulfil these conditions. Further, it utilized the strong uterine end of the ligament. If there was the least suspicion of pelvic adhesions, the abdomen should be opened. A transverse incision was the best for this. If the tubes were left, the round ligaments could then be shortened in the inguinal canals. He did not favour Gilliam's operation. It did not always give permanent relief. In several cases he had found the omentum wrapped round the ligaments and the puncture holes in the peritoneum. The Fallopian tubes were also kinked. Ventro-suspension should be a routine after double salpingectomy. He quite agreed it should never be done in any woman who could become pregnant. It sometimes caused fixation and was then a cause of dystocia, which now and then had to be met by Cæsarean section and even hysterectomy. Full-term gestation so stretched the fibrous band that the uterus fell back to its former mal-position during the puerperium. He had known the false ligament to measure 30 cm.. He agreed that simple retro-displacements often caused no symptoms. It was then best to leave them alone with one exception, viz., in married women who were sterile. The out-patient department of a general hospital was the best place to study the relative merits of operations. After 13 years' hospital experience he had found the most lasting results from external shortening of round ligaments.

Dr. W. T. Chenhall stated that he was a staunch supporter of the views elaborated by Dr. Ritchie. In criticising the Alexander-Adams operation, he admitted that it was easily performed, but he maintained that the absence of control of the condition of the pelvic organs was a very serious defect. He called attention to the altered mechanical condition, when the retroflexed uterus was subinvolved. External shortening of the round ligament, acting on an enlarged organ, tended to flex the organ forwards. Dr. Chenhall discussed at some length the details of a modification of Gilliam's operation, which had yielded excellent results

in his hands. He had performed this operation, even in the presence of pregnancy and had obtained satisfactory results in every case. He expressed his agreement with Dr. Worrall concerning the very limited use to which pessaries should be put and he also endorsed Dr. Worrall's teaching that it was of paramount importance to restore the pelvic floor.

Dr. J. Crawford Robertson said that he had learnt a lot from the discussion. He wished to make a few remarks concerning the prevention of misplacements. In many cases they were due to carelessness on the part of the medical attendant during child-birth and the lying period. As a rule, practitioners did not attend for longer than nine days after the birth of the child. He thought it was quite essential that the condition of the woman should be controlled for at least a month, until involution was well established and the risk of a mal-position removed. This applied also to hospital patients. In regard to the treatment of the condition, he preferred to combine the Alexander-Adams operation with an abdominal section to Gilliam's operation. He held very strongly that in certain cases the utero-sacral ligaments should be shortened as well as the round ligaments.

Dr. J. C. Windeyer expressed the opinion that the patient should be examined considerably earlier than one month after confinement. His practice was to carry out this examination two or three days after the patient was allowed to get up. He had found it a very useful practice to employ large pessaries at first and, later, when involution was proceeding, to substitute smaller ones. This practice had yielded him good results in simple retroversion. Dr. Ritchie interposed the remark that his paper dealt exclusively with retroflexion and that his disapprobation of the use of pessaries was in connexion with the condition of which he had been speaking.

Dr. Windeyer regretted that he could not supply without reference to the records, the number of Cesarean sections carried out after Gilliam's and other operations. He confirmed Dr. Worrall's statement that large masses of omentum had been found on several occasions at the point where the round ligament had been pulled through the abdominal wall. He preferred to use the Alexander-Adams operation in selected cases.

Dr. J. Flynn thought that, notwithstanding all that had been said against the Alexander-Adams operation, it had its field of usefulness. It was true that it was not applicable when there were adhesions, nor when there was disease of the tubes or ovaries or an extra-uterine condition requiring adjustment. If judgement were reserved until a bimanual examination had been carried out under an anaesthetic, it would be possible to form a correct decision in a large proportion of cases, whether or not the abdomen should be opened. He cited an instance to demonstrate the value of the Alexander-Adams operation in properly selected cases in combating sterility.

Dr. Flynn considered that any treatment of retroflexion in a parous woman that did not take cognizance of the pelvic floor, was incomplete. The *levator ani* was a muscle much talked of but little understood. The *pubo-rectalis*, which was the portion torn in the laceration of the lateral sulci, should be repaired separately from the *pubo-coccygeus*. The repair of the *pubo-coccygeus* was the basis of the external or perineal part of Emmall's operation. The repair of both portions was the most important factor in directing the intra-abdominal pressure on the posterior wall of the uterus. The neglect of this adjustment, as Dr. Worrall had pointed out, was the cause of the unhappy and unsuccessful results of so many procedures. The approximation of the two *pubo-coccygei* in front of the rectum was not meant to be an anatomical but a functional restoration, by means of which the intra-abdominal pressure, acting on the uterus from above, was counter-balanced by an equal force acting from below. This was the case in the normal, uninjured woman. When the vagina was a patulous, open canal, the intra-abdominal pressure was opposed only by the strength of the uterus and its attachments. Any operation, therefore, for *retrofexo uteri* that did not reckon with the normal hydrostatic equilibrium of the pelvic contents, was somewhat inadequate.

Dr. H. H. Schlink thought that there was a little good and a little bad to be said about pessaries. He held that the same objection that had been raised against pessaries could be raised against false teeth. The risk of sepsis from the foreign body was undoubtedly present in connexion with both. He had found pessaries very useful, when properly applied, in many cases. He agreed with Dr. Foreman that they should be regarded as an insurance. In turning his attention to the question of operations, he recognized that all the previous speakers were agreed in principle that there was no better method of supporting the uterus than by the round ligament. He wished to add one proviso, namely, that the pelvic floor was intact. He did not like Gilliam's operation and preferred Martin's operation, which had been perfected by Howard Kelly. This operation was the most satisfactory method of employing internal shortening of the round ligament. It enabled the gynaecologist to utilize the thick portion of the ligament for the support of the uterus and, at the same time, permitted him to deal with any complications that might be present. Excellent results were achieved by its means. Unsatisfactory results had been met with when the Alexander-Adams operation had been performed by gynaecologists of unknown reputation; the results in unmarried women were often unsatisfactory, even when the operator was competent and the case uncomplicated. He held that pregnancy developed the uterus and its ligaments and created more favourable conditions for this operation.

Dr. A. J. Gibson expressed surprise that Dr. Ritchie had laid such small stress on the necessity of the repair of the pelvic floor. In one case in which no repair of the cervix had been carried out, six operations had failed to effect a cure. He was most emphatic that during the child-bearing period the operation selected should be the safest available. No unnecessary risk was permissible. He thought that the Alexander-Adams operation was the best, because it brought the uterus into the best anatomical position and left no adventitious bands to complicate subsequent pregnancies. In many cases in which there were, in addition, hypertrophy of the cervix, cervical tears, inflammatory conditions of the cervix and similar complications, the symptoms persisted, in spite of the success of the operation. To obviate this, he advocated appropriate treatment of the cervix in all cases. For older women, requiring extensive plastic operations on the perineum, etc., there were objections to the operation. It frequently took a considerable time to perform and the patients often became exhausted. In these cases he preferred ventro-suspension. He did not regard Gilliam's operation as free from danger. In one case he had seen a hernia resulting and there had been other cases reported in the literature. He referred to a case of intestinal obstruction following Gilliam's operation, the details of which had been published in *Surgery, Gynecology and Obstetrics*. At times the operation failed to give relief.

After Dr. F. P. Sandes, the President, had made a few remarks, Dr. Ritchie replied to his critics systematically. He said that he had been quite prepared for the hornet's nest into which he had willingly stepped.

Referring to Dr. Foreman's remarks, he stated that pessaries were of little use in retroflexion, but that he had found them of distinct value in connexion with retroversion, though he objected to this method as a permanent treatment, and that he frequently used them during the early months of pregnancy. Dr. Foreman had questioned the possibility of hernia occurring after Gilliam's operation. Balfour Marshall had quoted specific cases in which this sequela had been noted and Cuthbert Lockyer maintained that hernia was the result of faulty technique. He claimed that the Alexander-Adams operation meant the external shortening of the round ligament. When the abdomen was opened, the operation was not the Alexander-Adams operation. The remarks which Dr. Foreman and Dr. Worrall had made concerning the thick end of the round ligament led him to enunciate his position. The greater the distance from the uterus, the thinner was the round ligament. He utilized that portion of the ligament which could be brought into convenient relation to the abdominal wall and which satisfied the requirements of the operation. He agreed with Dr. Worrall that it was best to leave the congenital cases alone. In regard to the question of the repair of the pelvic floor, he stated that some

years before he had the opportunity of discussing this matter with Gauss and Krönig's chief assistant. He had admitted that in Freiburg they had a mortality of 1% after these operations. He was not prepared to submit his patients to this risk. He did not follow Dr. Worrall in regard to his remarks on the tilting backwards of the uterus in the Gilliam operation. If this occurred, it was probably due to the too high attachment of the round ligament. He made it a practice to secure the ligament below the level of the anterior superior spine of the ilium. Attachment in this situation diminished the strain and resulted in a tilting forward of the organ.

Several speakers had referred to the risk of sepsis and sloughing in the Gilliam operation. He could only speak of his own experience. He had never met with either in any of his cases. In reference to ventro-suspension, he again referred to his own experience and stated that he had not met with a case of stretching of the round ligament after Gilliam's operation.

In reply to Dr. Barrington, he maintained that if the omentum was pulled through the opening with the round ligament, this would be due to faulty technique. The operation should not be condemned when the fault lay with the surgeon. Dr. Barrington had claimed that the Alexander-Adams operation was useful in selected cases. He claimed that Gilliam's was useful in all cases and that it was not a dangerous operation. In regard to Dr. Windeyer's suggestion that the examination of the patient after parturition should be carried out earlier than one month, he signified his consent. Dr. Schlink had compared a pessary to false teeth. He pointed out that false teeth did not get out of place and, further, that people who had to wear them regarded them as an infliction. Dr. Schlink had suggested that the Alexander-Adams operation was unsatisfactory in unmarried women. The four recent cases he had mentioned in his paper were in married women. He stated that congenital retroflexion at times gave rise to pain. In reply to Dr. Gibson, he stated that pain was often relieved by repair of cervical tears.

Dr. J. C. Windeyer read a paper on the treatment of salpingitis (see page 235). The practice of deferring the discussion on the various papers until all the papers had been read, resulted in a considerable curtailment of the discussion on Dr. Windeyer's paper.

Dr. Fourness Barrington was not impressed by conservatism in the treatment of salpingitis. If one tube was badly infected, the other should be removed, for, if left, it almost always caused subsequent trouble. Indeed, in gonorrhoeal pyosalpinx, removal of the whole uterus was often advisable. If the cervix was left it often remained the seat of chronic infection. Chronic cervical gonorrhœa was most difficult to cure. The cervix should alone be treated. Curetting in these cases was the worst thing possible. Once beyond the internal os the gonococcus soon reached the tubes. He agreed that posterior colpotomy was a life-saving operation. He preferred to remove the diseased tubes when the acute condition had subsided. Resection of the uterine ends of the tubes was a valuable point in technique.

Dr. W. T. Chennall congratulated Dr. Windeyer on an excellent paper. He agreed with Dr. Barrington concerning the difficulty to cure a gonorrhœal infection of the cervix. He would have been glad had Dr. Windeyer differentiated between gonorrhœococcal and streptococcal infections. He described briefly the difference in the signs and symptoms of these two conditions in the site of infection and in the method of spread. He endorsed the opinion that it was extremely dangerous to operate during an acute infection of the tubes. He emphasized the potential danger of passing an instrument through the external os in the presence of a gonorrhœal cervicitis. The danger was self-evident.

Dr. J. Crawford Robertson held that if treatment could be introduced early in gonorrhœal infections, much trouble would be avoided. He thought a great deal could be done by systematic and appropriate treatment of gonorrhœal cervicitis. As a rule, this treatment was not carried out properly. All State methods would be hopeless unless provision were made for the patient to rest.

Dr. H. H. Schlink had found that first attacks of salpingitis frequently subsided without operative treatment.

When a second attack occurred, an operation became essential.

Dr. W. Ritchie thought that it would probably be worth while to try vaccine in the treatment of pyosalpinx. Great advances had been made during recent years in vaccine treatment, and it was possible that the results would now be better than formerly.

In his reply, Dr. Windeyer pointed out that the question of the treatment of gonorrhoeal cervicitis was really outside the scope of his paper. At times the application of silver nitrate led to good results. In other cases it proved of no value. In his own cases he had found that the husband was frequently at fault and that it was quite necessary to treat him, as well as the wife.

The undermentioned have been elected members of the Western Australian Branch:—

Dr. Bruce Burneside, Osborne.

Dr. Donald Cameron, Dwellingup.

The undermentioned have been elected members of the Victorian Branch:—

J. R. Porter, Esq., M.B., Ch.B. (Univ. Melb.), 1916, Camperdown.

E. Rogerson, Esq., "Narinya," Dandenong Road, Caulfield, M.B., Ch.B. (Univ. Melb.), 1913.

A. L. Giblin, Esq., L.R.C.P., Edin., 1916, L.R.C.S., Edin., 1916, L.R.F.P.S., Glas., 1916, Armadale.

A. F. Kelly, Esq., M.B. (Univ. Sydney), 1915, Toowoomba, has been elected a member of the Queensland Branch.

Clifford Norval Douglas, Esq., M.B., Ch.M., 1919 (Univ. Sydney), Molong, has been nominated for election as a member of the New South Wales Branch.

THE ARMY MEDICAL CORPS COMFORTS FUND.

On August 13, 1914, a band of workers met for the purpose of instituting a fund having for its purpose the provision of comforts for the officers and men of the Australian Army Medical Corps. The organization was in Sydney, but the activities of this organization were extended to members of the Army Medical Corps from all the States. In our issue of May 26, 1917, we described in general terms the evolution of this fund and gave information concerning the excellent work that had been achieved during the first two years of its existence. From that time until the armistice was signed, the Fund continued its activities. Approximately £3,000 a year were disbursed for the purpose of carrying on the work.

To achieve the objects funds had to be procured and various methods were adopted. The most notable and lucrative was the establishment of a tea-room at the Royal Prince Alfred Hospital. The Army Medical Comforts Fund also successfully carried out a scheme for the repatriation of a member of the Army Medical Corps, Australian Imperial Force. The necessary money and the building material were obtained as gifts and, as a result, the Army Medical Corps Kiosk was erected at the Coast Hospital. It is now leased at a nominal rental to a man who served all through the war in the Army Medical Corps and returned incapacitated. He was thus afforded an opportunity of earning his livelihood and of making a comfortable home for his wife.

With the termination of the war, the necessity for carrying out the work undertaken by the Comforts Fund ceased. A final meeting of the Executive Committee was held on May 7, 1919, and Trustees were appointed to deal with the surplus funds and to manage and control the Kiosk.

At a subsequent date the Trustees resolved to hand the balance of the Fund to the Medical Officers' Relief Fund, with the request that this sum be used for the benefit of the widow and children of an officer of the Army Medical Corps who had died as the result of injuries received on active service and who had unfortunately been unable to make adequate provision for the future of his family.

THE CHAIR OF MEDICINE IN THE UNIVERSITY OF SYDNEY.

In another portion of this issue will be found an advertisement calling for applications from medical practitioners who are prepared to carry out the duties of a professor of medicine at the University of Sydney. We welcome the creation of this new position as the first step in the reconstitution of the school. Two further chairs should be created, namely, those of surgery and of preventive medicine. We trust that both will be instituted within a short time.

The Professor of Medicine will hold office for a period of seven years, but may be removed by the Senate, if he becomes incapable of performing his duties, if he misconducts himself or after he has attained the age of sixty. The appointment is contingent on the election of the professor to the position of honorary physician at the Royal Prince Alfred Hospital. If the selected candidate be not elected or if he ceases to be an honorary physician at any subsequent date, he automatically loses his position as professor. The Professor will be allowed to supplement his income of £900 a year by engaging in consulting practice. Ordinary medical practice will not be permitted and the Senate reserves itself the right of determining the form of consulting practice that will not interfere with his duties at the University. He will not be entitled to any lecture fees. A further condition of the appointment is that the Professor may not enter either the Federal or the State Houses of Parliament. He will be expected to enter upon his duties on March 1, 1920.

PNEUMONIC INFLUENZA.

The Commissioner of Public Health of Queensland removed on September 9, 1919, the restrictions imposed on persons in the town of Cairns, the Shires of Cairns, Nebo, Wangaratta and Division I. and III. of the Shire of Barron.

THE SOCIETY OF RETURNED MEDICAL OFFICERS OF NEW SOUTH WALES.

The first annual dinner of the Society of Returned Medical Officers of New South Wales will be held at the Wentworth Hotel, Sydney, on Friday, October 3, 1919, at 7 p.m. It is anticipated that the attendance will be large and members are requested to make an early application for tickets. The cost of the tickets will be approximately £1 1s.

We have been requested to ask all returned medical men who have served in the Royal Australian Navy, in the Australian Imperial Force, in the Naval and Military Expeditionary Forces or in the Imperial Forces and who are desirous of joining the Society, to send in their names and addresses to one of the Honorary Secretaries.

The first general meeting of the Society, which will be open to all members, will be held at the termination of the dinner. The Joint Honorary Secretaries are Lieutenant-Colonel H. R. G. Poate, 225 Macquarie Street, Sydney, and Lieutenant-Colonel C. E. Wassall, D.S.O., Hunter's Hill.

Corrigenda.

In the short record of the meeting of members of the faculty of medicine of the University of Sydney, published in our issue of September 6, 1919, it is erroneously announced that Dr. A. E. Mills was elected to the chair. Sir Herbert Maitland was elected chairman, on the motion of Dr. C. Bickerton Blackburn, seconded by Dr. A. E. Mills.

In the list of contributors to the Medical Officers' Relief Fund (September 13, 1919, page 226), the entry "T. R. Davis" should read "J. R. Davis."

Medical Appointments.

It is announced that Dr. F. L. P. Sawell (B.M.A.) has been appointed a Member of the Licensing Court for the Kalgoorlie Licensing District, Western Australia.

Dr. W. P. Birmingham (B.M.A.) has been appointed Medical Officer of Health to the Fremantle Municipal Council and Dr. D. Kerr to the Fremantle Road Board.

The undermentioned appointments have been made in the Adelaide Hospital: Honorary Surgeon, Dr. A. M. Cudmore (B.M.A.); Honorary Ophthalmic Surgeons, Dr. A. W. Hill (B.M.A.) and Dr. H. F. Shorney (B.M.A.); Honorary Assistant Physician, Dr. F. S. Hone (B.M.A.); Honorary Officer, Vaccine Department, Dr. Helen M. Mayo (B.M.A.); Honorary Assistant Surgeon, Dr. B. Smeaton (B.M.A.); and Honorary Galvanist, John Millikin, Esq., F.S.Sc.

For the purposes of the *Factories and Shops Acts*, Dr. A. P. Derham (B.M.A.) has been appointed Certifying Medical Practitioner in the Shire of Preston, Victoria.

Dr. D. C. Pigdon (B.M.A.) has been appointed Officer of Health for the North and South Ridings of the Shire of Eltham, Dr. C. E. Jelbart (B.M.A.) for the North and Central Ridings of the Shire of Korong and Dr. A. P. Derham (B.M.A.) for the Epping Riding of the Shire of Whittlesea, Victoria.

The appointment of Dr. Ewen Mackenzie (B.M.A.) as Public Vaccinator for the South-Eastern District and of Dr. A. P. Derham (B.M.A.) for the Metropolitan District, Victoria, is announced.

It is announced in the *Commonwealth Gazette* that Dr. H. S. McLelland (B.M.A.) has been appointed Quarantine Officer at Maryborough, Queensland, and, further, that Dr. K. G. McK. Aberdeen (B.M.A.) and Dr. C. J. Daniel (B.M.A.) have been appointed Quarantine Officers as from August 1, 1919, and July 16, 1919, respectively.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xx.

University of Sydney: Professor of Medicine.

University of Melbourne: Lecturer in Pathology.

University of Adelaide: Professor of Pathology.

Public Service Board, Sydney: Principal Medical Officer, Department of Public Instruction.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.)	All Friendly Society Lodges, Institutes, Medical Dispensaries and other Contract Practice. Australian Prudential Association Proprietary, Limited. Mutual National Provident Club. National Provident Association.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Australian Natives' Association. Brisbane United Friendly Society Institute. Cloncurry Hospital.
TASMANIA. (Hon. Sec., Macquarie Street, Hobart.)	Medical Officers in all State-aided Hospitals in Tasmania.

Branch.	APPOINTMENTS.
SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.)	Contract Practice Appointments at Renmark. Contract Practice Appointments in South Australia.
WESTERN AUSTRALIA. (Hon. Sec., 6 Bank of New South Wales Chambers, St. George's Terrace, Perth.)	All Contract Practice Appointments in Western Australia.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Australian Natives' Association. Balmain United Friendly Societies' Dispensary. Canterbury United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Friendly Society Lodges at Lithgow. Friendly Society Lodges at Parramatta, Auburn and Lidcombe. Leichhardt and Petersham Dispensary. Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. Newcastle Collieries—Killingworth, Seasham Nos. 1 and 2, West Wallsend. North Sydney United Friendly Societies. People's Prudential Benefit Society. Phoenix Mutual Provident Society..
NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.)	Friendly Society Lodges, Wellington, New Zealand.

Diary for the Month.

Sept. 23.—N.S.W. Branch, Medical Politics Committee; Organization and Science Committee.
 Sept. 24.—Vic. Branch, B.M.A., Council.
 Sept. 25.—S. Aust. Branch, B.M.A..
 Sept. 26.—N.S.W. Branch, B.M.A., Election of two members to Federal Committee.
 Sept. 26.—Q. Branch, B.M.A., Council.
 Sept. 30.—Vic. Branch, B.M.A., Election of two members to Federal Committee.
 Oct. 1.—Vic. Branch, B.M.A.
 Oct. 3.—Q. Branch, B.M.A.
 Oct. 3.—N.S.W. Branch, B.M.A.; Annual Meeting of Delegates of Local Associations with the Council (first day).
 Oct. 4.—N.S.W. Branch, B.M.A.; Annual Meeting of Delegates of Local Associations with the Council (second day).
 Oct. 7.—Tas. Branch, B.M.A., Branch and Council.
 Oct. 7.—N.S.W. Branch, B.M.A., Council (Quarterly).
 Oct. 10.—N.S.W. Branch, B.M.A., Clinical.
 Oct. 10.—Q. Branch, B.M.A., Council.
 Oct. 10.—S. Aust. Branch, B.M.A., Council.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated.

All communications should be addressed to "The Editor," *The Medical Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney.